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## The Effects of Selection System Characteristics and Privacy Needs on Procedural Justice Perceptions: An Investigation of Social Networking Data in Employee Selection

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**THE EFFECTS OF SELECTION SYSTEM CHARACTERISTICS AND PRIVACY  
NEEDS ON PROCEDURAL JUSTICE PERCEPTIONS: AN INVESTIGATION OF  
SOCIAL NETWORKING DATA IN EMPLOYEE SELECTION**

by

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## **ABSTRACT**

### **THE EFFECTS OF SELECTION SYSTEM CHARACTERISTICS AND PRIVACY NEEDS ON PROCEDURAL JUSTICE PERCEPTIONS: AN INVESTIGATION OF SOCIAL NETWORK SITE INFORMATION IN EMPLOYEE SELECTION**

Rachel C. Callan  
Old Dominion University, 2018  
Director: Dr. Richard N. Landers

Privacy violations have been suggested as an important variable in procedural justice perceptions, but the nature of this relationship is not well understood. Privacy has been investigated as a precursor to overall justice perceptions, but to date no published research investigates the role of privacy in the Gilliland procedural justice model (1993), one of the most influential procedural justice models in the literature. This dissertation explored this relationship by applying the Gilliland model to a situation rife with potential privacy issues: the use of social networking site information in employee selection. As in Gilliland's model, selection system characteristics altered procedural justice rule perceptions. These rule perceptions were then related to overall procedural justice perceptions of the selection system. It was also hypothesized that privacy concerns moderated the relationship between procedural justice rule perceptions and overall justice perceptions such that the relationship was stronger for those with lower needs for privacy. An alternative hypothesis, that privacy needs directly affect overall procedural justice perceptions, was also tested. For the full study, 1,318 participants' responses to surveys on Amazon's Mechanical Turk (mTurk) were analyzed to assess their reactions to hypothetical employee selection scenarios with high or low justice for the following procedural justice rules: job relatedness content, opportunity to perform, reconsideration opportunity, and consistency of administration. The model was partially supported, with the manipulation of justice rules being related to perceptions of the associated procedural justice rules, which were then also related to

overall procedural justice perceptions. Further, privacy concerns were related to overall procedural justice perceptions. The moderating role of privacy concerns on the relationship between procedural justice rule perceptions and overall procedural justice perceptions was not supported. A post hoc analysis revealed that the interaction between objective procedural justice and privacy concerns had a small effect on procedural justice perceptions. Practical implications, directions for future research, and limitations are discussed.

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## CHAPTER I

### INTRODUCTION

As online social media have grown in popularity, organizations have become interested in how this publicly-available data can be used to identify both top applicants and those applicants that would become problematic employees. However, little work has been done to investigate applicant reactions to these practices. According to a 2011 survey (Horan), 91% of professionals involved in hiring decisions report using social networking sites (SNS) to screen job applicants, which is an increase from previous surveys (Haefner, 2009). The range of SNS used for this purpose is quite broad: 29% reported using Facebook, 26% LinkedIn, 21% Myspace, 11% blogs, and 7% Twitter (Haefner, 2009). Interestingly, Horan (2011) found that this data is being used for a variety of purposes, with 68% stating they use the information to screen-in candidates and 69% reporting that SNS information is used to screen-out candidates. Unfortunately, these surveys did not explore how SNS data is utilized in these selection systems, such as whether all applicants are being investigated equally, whether this kind of data is only used in later hurdles, or if the information is only used as a final tie-breaker. This is a crucial issue because these details may be important to applicants who are weighing whether or not a selection system is treating them fairly, which should be a concern for practitioners and researchers alike.

Organizations need to be concerned with how applicants' procedural justice perceptions are affected when information is collected from SNS. Procedural justice can be defined as individuals' fairness perceptions of policies and procedures used to make decisions (Greenberg & Folger, 1983). In the case of selection, this refers specifically to the perceived fairness of the policies and procedures used to make selection decisions, such as how information about

applicants is gathered and used when deciding which candidates will be hired. When an applicant develops poor procedural justice perceptions, a variety of negative outcomes may result, including reduced test-taking motivation, outcome satisfaction, job satisfaction, and organizational commitment (Bauer et al., 2006; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; McCarthy et al., 2013). Further, procedural justice is related to applicant attraction as well as litigation intentions in applicants, two important concerns in employee selection (Hausknecht, Day, & Thomas, 2004). In the SNS context, both statutory law and case law regarding employee selection are still very much in their infancy because SNS are a relatively recent invention (for more detail, see Pate, 2012). Yet SNS can provide employers with an extraordinary amount of personal information about applicants. This is problematic because the method and use of applicant data is an important part of selection system design that has a direct effect on justice perceptions (Gilliland, 1993). If an applicant disapproves of the use of SNS data for employee selection, and the applicant suspects a potential employer of doing so, he or she is likely to have poor procedural justice perceptions of the selection process. The use of SNS data in selection may be especially important for these fairness perceptions because much of the data on SNS was not originally posted with the intention that it would be used by a prospective employer. With more traditional selection data sources such as application blanks, reference checks, or resumes, an applicant submits the information knowing it will be used for employee selection, even if they do not know how exactly the information will be weighed when selecting candidates. For additional background on the effects of selection system characteristics on procedural justice perceptions in general as well as best practices for practitioners, the reader is directed toward this greater body of literature on these topics.

An important consideration in the SNS context is that applicants may also believe that these data collection procedures violate their expectations for privacy. Altman (1976) defined privacy at its simplest as an individual controlling access to him or herself or his or her group, proposing that people have a desired level of privacy and an achieved level of privacy in any particular situation. When an individual's desired privacy is greater than the achieved privacy, the individual feels violated as a result of the intrusion. If the procedures of a selection system result in a lower level of actual privacy than the applicant's desired level of privacy, the applicant may believe that not only privacy has been violated but also that the procedures themselves are unfair as a result of that violation. This is of special concern when SNS data are used in selection because these data are generally not intended for the audience of a potential employer, unlike that on a resume or application. As a result, the likelihood that an applicant will perceive having control of access to one's self or one's group is reduced.

Bauer et al. (2006) investigated the issues of procedural justice and applicant privacy concerns issues in web-based selection systems in general, but more work is needed to understand how selection system design characteristics affect procedural justice, as this has important implications for the creation of such selection systems. Further, it is necessary to investigate how privacy concerns influence justice perceptions broadly in order to better understand how privacy violations affect an applicant's justice perceptions. The present dissertation attempts to investigate these two important issues in the context of SNS data use in selection because such privacy violations are both timely and potentially unique in comparison to more traditional selection data sources.



## **Antecedents of Procedural Justice Perceptions**

Procedural justice, as discussed by Greenberg and Folger (1983), involves processes in an organization and their perceived fairness. The procedures of employee selection include communications from the organization regarding selection, recruitment procedures, but also characteristics of the selection system, such as how data is collected and how it is used; this is reflected in classic models of procedural justice including Leventhal's (1980) and Gilliland's (1993). Despite this theoretical relationship, little prior research has linked specific selection system design characteristics to procedural justice perceptions. This is unfortunate because this research should provide practical recommendations for organizations interested in improving procedural justice perceptions of their selection systems. By investigating the relationship between selection system characteristics and procedural justice perceptions empirically, the present dissertation seeks to provide recommendations for practitioners as well as provide support for procedural justice theory.

To better understand how procedural justice can inform the selection process, it is necessary to first review classic procedural justice models. Leventhal (1980) was the first to incorporate justice rules (Fodchuk & Sidebotham, 2005) into a structural model of procedural justice. Procedural justice rules are defined as an individual's belief that a given procedure meeting specific criteria is fair and appropriate for personnel selection (Leventhal, 1980). Leventhal proposed six procedural justice rules: consistency, bias suppression, accuracy, correctability, representativeness, and ethicality. Leventhal (1980) noted that perceived and objective justice are not necessarily one in the same: applicants may perceive a just system as unjust and vice-versa. As a result, it is important to measure justice perceptions, rather than simply assume that a system that objectively follows the justice rules will be perceived as such.

Leventhal's (1980) rules and measurement recommendations thus provide not only a framework for other procedural justice researchers but also guidance for practitioners seeking to assess and address procedural justice.

Gilliland (1993) developed another model of procedural justice, based on the work of Leventhal (1980), which relied on a more nuanced understanding of procedural justice as well as sets of rules that provide guidance for practitioners and boundary conditions for researchers. Gilliland expanded and further organized the procedural justice rules, with a total of ten rules grouped into three categories: formal characteristics of the selection system, explanation given to applicants, and interpersonal treatment of applicants. The present study focuses on the formal characteristics of the selection system because these provide specific recommendations that can be applied directly to the context of SNS data. Explanations given to applicants and interpersonal treatment remain important, but these concerns are not unique to SNS. The formal characteristics, described below, allow us to investigate the various types of SNS data available as well as the collection methods used to capture all of this information, which has yet to be explored in the literature.

Application of the Gilliland (1993) model has been tested empirically by Lueke (2004) who manipulated formal characteristics of a hypothetical selection system and then asked participants to rate the system based on the formal characteristics rules. The ratings of procedural justice rules were correlated with condition such that participants who were exposed to an unfair selection system rated it as violating the associated rules and vice versa. This demonstrates that justice perceptions can be manipulated at the level of procedural justice rules, and that participants perceive these manipulations accurately. The present dissertation improves upon Lueke (2004) in that each justice rule will be manipulated separately, which will allow the rules

to be investigated individually, rather than investigating procedural justice only as a whole. The present dissertation will also offer the opportunity to investigate procedural justice in the context of SNS data used in selection.

Hartwell (2014) asked undergraduate business students to report their experience with social media for both Facebook and LinkedIn as well as their perceptions for each in terms of privacy invasiveness, job-relatedness, and procedural justice. For both SNS, perceived privacy invasiveness and job-relatedness were related to overall perceptions of procedural justice. Experience with LinkedIn was related to perceptions of job-relatedness for LinkedIn, but LinkedIn was also rated significantly more job-related than Facebook. LinkedIn was also rated as having lower perceived privacy invasion and its use in selection being more procedurally just. These findings support the use of Gilliland's (1993) model to interpret the effect of SNS on applicant reactions. Job-relatedness is one of Gilliland's (1993) proposed procedural justice rules, while privacy invasiveness could be related to other aspects of the justice rules, such as the interpersonal treatment rules. Although Hartwell used existing SNS in his study, which did not allow him control over existing perceptions of the SNS, different SNS have different characteristics, which participants recognized to some degree. This lends some support to Gilliland's (1993) assertion that system characteristics are perceived by applicants and that these perceptions influence overall perceptions of justice. Hartwell (2014) did not, however, isolate the rules proposed in Gilliland's (1993) model as his research focused mainly on overall perceptions of procedural justice. The present study extends Hartwell's (2014) work on perceptions of SNS data in selection, investigating Gilliland's (1993) rules separately to not only support the model in this context but also provide specific recommendations to practitioners. Further, the present study utilizes hypothetical scenarios without directly referring to existing SNS, eliminating some

of the issues with using existing SNS that participants may already have formed perceptions of (accurately or inaccurately), based on their own experiences. These additions allow the current study to provide further insights into applicant perceptions of SNS data in selection as well as investigate the Gilliland's (1993) model in this context.

Very few studies have investigated the Gilliland (1993) model by manipulating aspects of the selection system to empirically test the procedural justice rules hypothesized in the model. This is problematic because as the field of industrial and organizational psychology has turned its attention toward making causal inferences (DeShon, 2013), there is a need to establish that hypothesized causal relationships in our most influential models are in fact causal. Although studies like Gilliland's (1995) analyzing critical incidents found support for the procedural justice rules, without manipulating the selection system characteristics, a causal relationship between these selection system types and procedural justice cannot be inferred. Similarly, although Lueke (2004) manipulated the selection system characteristics when investigating the procedural justice rules, because the characteristics were not manipulated independently a causal relationship between each characteristic and the corresponding rule has not been established. The present study seeks to fill this gap by manipulating the selection system characteristics independently while investigating the Gilliland (1993) model in order to test the hypothesized relationships between system characteristics and procedural justice perceptions.

Given that the use of SNS is relatively new and yet pervasive (Haefner, 2009; Horan, 2011), it is crucial that our literature provide recommendations to practitioners regarding applicant reactions to this practice, and manipulation of selection system characteristics is one way this can be achieved. Brown and Vaughn (2011) discussed that there is little legal precedent dictating what organizations can and cannot do when utilizing SNS data in selection, which gives

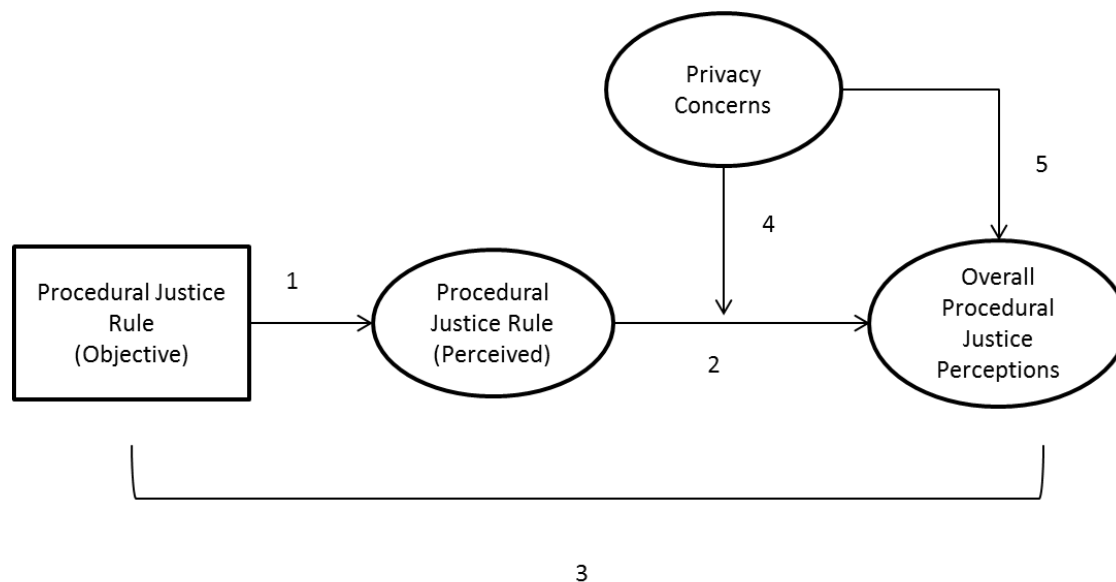
organizations few recommendations for what constitutes fair and unfair practices. This is important, because the issue of fairness is not only a legal one, but also a psychological issue in that even practices that are legal may not be prudent if applicants view such procedures as unfair. Meta-analysis suggests that procedural justice reactions affect a variety of outcomes including test-taking motivation, performance, organizational attractiveness, and acceptance intentions (Hausknecht et al., 2004), all of which influence the effectiveness of a selection system. However, in order to provide specific recommendations for procedural justice issues that may be less obvious, such as whether to use SNS data in selection at all, research such as the present study is needed in order to illuminate how applicants react to different kinds of SNS data procedures in selection. The Gilliland (1993) model is especially relevant to the issue of SNS data in selection because it touches upon many of the concerns related to the use of SNS data for hiring purposes. The formal characteristics rules are those most obviously related to SNS data concerns because they include the issues of job-relatedness, opportunity to perform, reconsideration opportunity, and consistency of administration. Job-relatedness is an important issue with SNS because many of these sites are not developed explicitly for professional life; rather, they are broadly intended to connect family, friends, and sometimes strangers, in a casual environment through the sharing of thoughts, experiences, photos, etc. This is related to the issue of opportunity to perform, since applicants may not be creating SNS information with the intention of using this data for job seeking purposes. As a result, applicants may feel that the data gathered from SNS does not reflect their skills and abilities as employees. The secretive nature of SNS data mining for employment is related to the last two rules, reconsideration opportunity and consistency of administration. Without transparent procedures for collecting and utilizing this data, applicants miss the opportunity to appeal employment decisions that are based on this data.

Further, applicants are unaware of whether or not this data is collected and used in a consistent manner across applicants, and this lack of clarity regarding SNS data in selection suggests applicant concerns regarding the consistency of these procedures may be valid. Gilliland (1993) additionally proposed invasiveness of questions as a potential procedural justice rule, but did not include it in his formal model. For these reasons, Gilliland's (1993) model encompasses many of the concerns that have been raised regarding the use of SNS in employee selection, which makes it a natural choice when investigating this newer selection method.

The use of SNS in selection is controversial, at least in part, due to applicant beliefs that these practices are a violation of their rights. The legal field in particular has discussed these issues in detail, with Pate (2012) suggesting that one of the biggest legal concerns with SNS is that employers can inadvertently learn information about applicants' protected class status, such as race, disabilities, nationality, or religion, through a SNS that employers would typically not discover until the interview process or even later in a traditional selection system. This information is revealed through personal photographs, correspondence with family and friends, and other communications through the SNS. This exacerbates the issue because rather than voluntarily revealing personal information on a form, applicants may feel as though they are being spied upon by the organization, despite assertions that posting anything on the internet is akin to shouting it in a crowded street (Nissenbaum, 1998; Schesser, 2006). Legally, this is a gray area because, as Pate (2012) points out, although asking applicants for their SNS passwords is illegal in many states, searching for their public profiles remains legal. Further, Pate (2012) argues that it is unlikely such searches will become illegal in the future because employers see this as valuable information and in the case of employees trusted with the care of others, such as daycare employees, teachers, police officers, etc., employers may be considered negligent for not

thoroughly researching employees prior to their hiring. Like the law, the literature has also lagged behind practice, leaving practitioners without a clear understanding of how the use of SNS data can be used in selection and how it may affect outcomes of interest.

Given the support discussed above, the Gilliland (1993) model was used as the basis for the procedural justice portion of the proposed model, as seen in Figure 1. The objective characteristics of the selection system should cause changes in applicant perceptions of the associated procedural justice rules. In other words, applicants should perceive a change in procedural justice rules when the level of justice is manipulated through selection system characteristics. By investigating this relationship, the present study seeks to show that these perceptions can be manipulated by an organization, which has not previously been demonstrated.



*Figure 1.* Proposed theoretical model of applicant reactions to the use of social networking site data and the moderating role of need for privacy.

**Hypothesis 1.** Objective procedural justice rules will be positively related to perceptions of those rules.

## **The Influence of Procedural Justice Rule Perceptions on Overall Perceptions**

Perceptions of procedural justice rules should also be related to overall perceptions of procedural justice, as proposed by Gilliland (1993). That is, applicants form their overall perceptions of fairness through more specific observations. These observations are then compiled, leading to an overall assessment of the fairness of a particular selection system. This relationship was supported in the development of the Selection Procedural Justice Scale (SPJS; Bauer et al., 2001), which found all subscales of the procedural justice rules were related to an overall measure of procedural justice. Lueke (2004) also found support for this relationship when manipulating procedural justice, finding that each procedural justice subscale score was correlated with an overall measure of procedural justice. These examples illustrate the theoretical underpinnings of Gilliland's (1993) model, which states perceptions of justice rules precede overall perceptions of justice.

**Gilliland's hypothesized relationships between rule and overall perceptions.** The temporal element of Gilliland's (1993) model demonstrates that perceptions of the justice rules inform overall justice perceptions. This mediating step suggests that people actively assess the fairness aspects of the system prior to making an overall judgment. Overall perceptions are the crux of the model as they mediate the relationship between individual rule perceptions and outcomes. People perceive whether various justice rules are violated, form overall perceptions of the selection system's fairness, and then make decisions directly relevant to organizational outcomes based upon those perceptions. This demonstrates the critical role this decision process plays in applicant behaviors. In order to influence outcomes like job acceptance rates or test-taking motivation, we must first understand how various aspects of a selection system are perceived and how these perceptions influence overall reactions to the selection system.



When Bauer et al. (2001) developed the SPJS based on the Gilliland (1993) model, they found support for many of Gilliland's hypothesized relationships. Through the use of four different samples, including applicant, employee, and student samples, the authors developed and validated a comprehensive measure of procedural justice. As part of the validation process, recent hires were given both the SPJS and an overall measure of procedural justice in order to demonstrate convergent validity. All of the SPJS subscales were found to be significantly correlated with the overall measure of procedural justice, with correlations ranging between .25 and .77. The correlations were stronger when the items were grouped under the factors identified while developing the measure, with correlations between .39 and .69. Following the validation study, a replication study was completed using a student sample, with similar results. Through the development of the SPJS, it was demonstrated that Gilliland's (1993) rules, the basis for all of the SPJS items, are related to overall procedural justice.

The strongest support for the Gilliland model (1993) comes from a recent meta-analysis which was able to correlate perceptions of justice rules to overall justice perceptions across 86 studies (Hausknecht et al., 2004). Each procedural justice rule was found to be related to overall procedural justice perceptions, with true score correlations ranging from .17 to .63. For the rules most important for this study, consistency ( $\rho = .35$ ), job relatedness ( $\rho = .61$ ), face validity ( $\rho = .58$ ), perceived predictive validity ( $\rho = .63$ ), and opportunity to perform ( $\rho = .56$ ), each rule had a moderate to strong relationship to overall justice perceptions. The authors also compared studies that used authentic and hypothetical contexts to investigate procedural justice. For hypothetical contexts, like that of the proposed study, the effects were generally stronger than in authentic contexts. In the present study, it is expected that these effects will be replicated. This relationship can be seen in Figure 1.

Bauer et al. (2006) applied the Gilliland model to overall justice perceptions in a web-based selection context, demonstrating that the assumptions regarding procedural justice reactions are upheld when employee selection data is collected online. In this study, the full Gilliland model was not tested, but a privacy concerns about selection information transmitted over the internet were used to predict overall fairness perceptions of online selection procedures. The privacy items include, “Employment-related information (e.g., information on an application form) that I submit over the Internet is secure,” and, “It is difficult for someone to break into databases containing employment-related information (e.g., information on an application form) obtained over the Internet.” Gilliland (1993) theorized that privacy may be related to justice perceptions in a number of ways, one of which is whether the questions included in a measure are seen as invasive to applicants. Of course, the Gilliland (1993) model was developed before internet security was a mainstream concern, and as such the Bauer et al. (2006) study updates the model by including this issue as a precursor to overall justice perceptions. Given the support described above, it is expected that perceptions of justice rules will be related to overall justice perceptions. That is, participants who report that they perceive one or more of the justice rules included in this study to be violated, will also be more likely to report that the selection system is generally unfair. These hypotheses echo those relationships hypothesized in Gilliland’s (1993) model as well as recent findings from the web-based selection literature (Bauer et al., 2006) and meta-analysis (Hausknecht et al., 2004).

**Hypothesis 2.** Perceptions of procedural justice rules will be positively related to overall perceptions of procedural justice.

### **Procedural Justice Rule Perceptions as a Mediator**

Gilliland (1993) depicted procedural justice rules as a mediator between characteristics of the selection system and overall perceptions of procedural justice. For example, according to Gilliland (1993) the questions included in a job interview will be perceived by an applicant as job related (or not), which then causes the applicant to view the overall selection process as more (or less) fair. In the model, the objective characteristics of the selection system can only influence overall fairness perceptions through the rule perceptions, making this relationship a full mediation.

Specifying this full mediation is important because it explains a great deal about the cognitive processes of the individual as he or she perceives a selection system. This same mediating relationship was proposed by Ford, Truxillo, and Bauer (2009) in regards to internal applicant reactions. Here, the authors considered many characteristics of the work environment to be contextual antecedents to justice rule perceptions, including the selection process itself. Ryan and Ployhart (2000) discussed the importance of isolating mediating effects using experimental research in order to better understand the cognitive processes of applicants. The present study helps to answer this call by proposing to test the mediating relationship originally proposed by Gilliland (1993). Further, Ryan and Ployhart (2000) discussed the importance of actively manipulating selection system characteristics in experimental research, which the proposed study also accomplishes in the test of the model. As such, the proposed study should provide unique support for the theory behind Gilliland's (1993) model and specifically the mediating relationship he proposed.

**Hypothesis 3.** Justice rule perceptions will mediate the relationship between objectively defined justice rules and overall procedural justice perceptions.

### **Privacy Concerns in Selection**

The relationship between perceptions of procedural justice rules and overall justice perceptions should be influenced by applicants' privacy concerns. Procedural justice rules like job relatedness or consistency of administration directly or indirectly touch upon whether the applicant believes his or her privacy has been violated (Gilliland, 1993), making this an important variable in understanding procedural justice perceptions in selection. In order to explain more variance in the relationship between procedural justice rule perceptions and overall procedural justice perceptions, we need to also understand what variables may moderate this relationship. One potential moderator is an individual's privacy needs, which could influence a person's perceptions of justice of a selection system.

Privacy violations should affect procedural justice perceptions such that a system that a person perceives has violated his or her privacy should also be perceived as less procedurally just. Gilliland (1993) discussed the possible connection between procedural justice and privacy when discussing potential rules to be considered in his model. One of these rules was the issue of invasiveness of questions or invasions of privacy in a selection system. Gilliland (1993) noted that the issues of drug testing and invasive questions have been investigated in the literature and tried in court systems, but stated that more research was needed in order to link procedural justice perceptions and privacy invasions. Researchers have followed up on this and investigated fairness perceptions of drug testing (Sujak, Villanova, & Daly, 1995; Donald M. Truxillo, Normandy, & Bauer, 2001) as well as invasive question use (Connerley, Mael, & Morath, 1999; Kravitz, Stinson, & Chavez, 1996). However, the Gilliland (1993) procedural justice model has not been updated to incorporate these privacy issues, and this limits our ability to predict applicant perceptions of fairness.

Privacy theorists generally agree that individuals differ in their need for privacy (Altman, 1976; Christofides, Muise, & Desmarais, 2012; Pedersen, 1979; Westin, 1967) and from Gilliland's (1993) model, it appears likely that an individual's need for privacy will color his or her perceptions of fairness. If a person believes a selection system has accessed information about him or herself beyond what was desired, he or she will naturally feel invaded and this should influence the applicant's overall perceptions of the selection system. Although extensive work has been done to explain individual needs for privacy through the work of Westin (1967), Marshall (1974), and others, procedural justice models have lagged behind in fully incorporating this variable. If individual privacy needs are not incorporated in procedural justice models, a key variable that influences individual perceptions is missing.

Privacy has been conceptualized as controlling access to oneself or one's group (Altman, 1976). Altman (1976) created a list of functions of privacy: regulating one's interactions with others, the opportunity to step away from others for self-evaluation purposes, and the development of a self-identity separate from others. The most relevant aspects of Altman's (1976) theory to employee selection are desired level of privacy and unmet privacy expectations. Altman theorized that each person has his or her own desired level of privacy, or ideal state of social interaction. Further, in a given situation there is also an achieved level of privacy; that is, the amount of privacy a person has under the circumstances. A person regularly compares his or her desired privacy to the achieved level of privacy at that time in order to understand his or her control of the social situation. If the achieved level of privacy is less than the desired level of privacy, the person perceives an intrusion and may react in order to return to equilibrium. If the achieved level of privacy is greater than the desired level of privacy, boredom and loneliness result as the person is unable to interact with others as intimately as desired. In the case of

employee selection, it is the former circumstance that poses the greatest concern for researchers and practitioners in selection settings as negative reactions from applicants and employees who believe their privacy has been violated may adversely affect the organization. Gilliland (1993) was aware of these issues, as evidenced by his inclusion of several rules directly and indirectly related to privacy into his model. Under a list of additional rules for future consideration, Gilliland (1993) included invasiveness of questions/invasion of privacy, noting that the work of Stone and Stone (1990) support its inclusion as a rule. Further, rules like job relatedness also imply the issue of privacy; asking about information not related to the job when making selection decision, from hobbies to family life to juvenile crime records, not only seems irrelevant but employees who wish to carefully control information about their personal lives will find such disclosures to be an invasion.

### **Privacy Concerns Specific to the Use of Social Media in Selection**

The issues of procedural justice, privacy, and web-based selection has been explored in the previously discussed Bauer et al. (2006) model, but the use of SNS data for selection purposes has unique privacy concerns that were unexplored by Bauer and colleagues, and this context suggests the need for an additional moderator. Although both web-based testing and SNS involve information being sent over the Internet, in the case of SNS, the information may or may not have been created by the individual with the intention of presenting it to a potential employer. With web-based testing, all of the information entered by the individual was provided with the explicit intention of sending that information to the potential employer. Although there may be privacy concerns regarding others intercepting the data, the fact that the organization is accessing the data does not pose a threat to privacy because the individual is consenting to that exchange of information. SNS make this relationship much more complicated, because it is

likely that little or none of the data entered into the SNS was intended to be shared with a potential employer. This suggests that, in this case, an individual's need for privacy may influence perceptions of fairness differently. The present model proposes that in this context privacy concerns should moderate the relationship between justice rule perceptions and overall justice perceptions, rather than act as an antecedent to overall procedural justice perceptions alone, as the Bauer et al. (2006) model had proposed, due to these unique concerns.

In their two-part study, Bauer et al. (2006) were able to demonstrate support for a relationship between privacy and justice in the web-based selection context. The Bauer et al. (2006) model states that information privacy concerns have direct and indirect effects of test-taking motivation through procedural justice perceptions. Additionally, the relationship between procedural justice and test-taking is moderated by experience with computers. Two samples were utilized to test the model. In the first sample, student participants received a packet with information about a fictitious position, a demographics survey, the privacy concerns measure and a survey regarding their experience with computers. The students were instructed to then apply for the job online, and were automatically informed if they passed or failed the online application. After receiving this feedback, students were forwarded to the final group of surveys including the procedural justice measure and a test-taking motivation measure. In the student sample, privacy concerns were found to predict procedural justice perceptions and procedural justice perceptions were found to predict test-taking motivation, although the moderating effects of computer experience were not found to be supported. In the applicant sample, after applicants applied to the position online they received an email from the researchers with a link to an online survey containing all of the measures described previously. In the second sample, which utilized job applicants, all of the relationships were supported, including the moderating effect of

computer experience. The Bauer et al. (2006) study is critical because it was the first exploration of the relationship between privacy and fairness perceptions in the web-based selection context; prior to this study, organizations seeking to move their selection systems online had few resources for understanding the adverse reactions of applicants in this context and other related outcomes.

The Bauer et al. (2006) conceptualization of the relationship between privacy concerns and justice perceptions is not entirely consistent with the earlier literature, however. According to Gilliland (1993), applicants will perceive the characteristics of the selection system and weigh whether the practices violate procedural justice rules before making an overall judgment regarding the fairness of the system. Critically, one of the proposed rules in Gilliland's (1993) model is invasiveness, which is privacy-related. Following this model, an applicant will consider his or her own privacy concerns while weighing whether the system has invaded privacy, as discussed by Altman (1976), before finally deciding whether the overall system is procedurally just. As a result, rather than preceding procedural justice perceptions altogether, privacy concerns are instead influencing the relationship between perceptions of individual justice rules and overall procedural justice perceptions. By not including these rules in their model, Bauer et al. (2006) have oversimplified the issue of procedural justice in web-based selection, leaving more questions to be answered regarding how practitioners can develop systems in order to achieve positive outcomes.

The measures Bauer et al. (2006) utilized in their study for both privacy and procedural justice further obscured the underlying cognitive processes. Only two items from Truxillo and Bauer (1999) were used to investigate procedural justice: "Overall, I think an online application screening procedure is very fair for this job." and "I think that screening people online is the



fairest way to determine their abilities for this job.” This is problematic because it does not address the underlying factors of procedural justice outlined by Gilliland (1993). Instead, it provides a very general rating of perceived fairness of the selection system. This is related to the “bandwidth-fidelity dilemma”. The “bandwidth-fidelity dilemma” states that there is a need to balance between measuring a single, narrow variable precisely and measuring many variables more superficially when predicting a given outcome (Cronbach & Gleser, 1965). This has become a significant issue in personality research (Ones & Viswesvaran, 1996). Given the work put into describing the structure of procedural justice (Gilliland, 1993) and measuring this structure precisely (Bauer et al., 2001), it appears that in the Bauer et al. studies (2006) many facets of procedural justice were measured superficially with this two-item measure. These two items could not capture all of the justice rules Gilliland (1993) presented; instead, it is a very coarse measure of “fairness”. By using a measure that fails to account for the structure of procedural justice that has been supported in the literature (Bauer et al., 2001), our understanding of procedural justice in this study is limited. The privacy measure utilized by Bauer et al. (2006) is also problematic for similar reasons. Two items were adapted from Harris, Hoy, and Lievens (2003): “Employment-related information (e.g., information on an application form) that I submit over the Internet is secure,” and, “It is difficult for someone to break into databases containing employment-related information (e.g., information on an application form) obtained over the Internet.” These items fail to capture privacy concerns as described in the privacy literature, with a more general focus on control of access to oneself and one’s group (Altman, 1976). Further, the items suffer from the conglomeration of knowledge and attitudes, making it impossible to tease apart how much an applicant’s response is due to knowledge regarding Internet security and how much is due to individual differences in privacy concerns. For

example, ratings of “strongly agree” on these items could indicate that a person is especially computer savvy and/or he or she is especially concerned with privacy. Conversely, ratings of “strongly disagree” could be the result of ignorance of computer hacking and/or a very low personal need for privacy. With a better measure of privacy concerns, more in line with those from the privacy literature, the proposed model should explain more variance in procedural justice perceptions and demonstrate more clearly the cognitive processes behind procedural justice perceptions.

The proposed model thus suggests that the relationship between each procedural justice rule perception and overall procedural justice perceptions should be moderated by privacy concerns, consistent with both the work of Gilliland (1993) and Altman (1976).

**Hypothesis 4.** Privacy concerns will moderate the relationship between justice rule perceptions and overall perceptions of procedural justice such that for those with lower privacy concerns, the relationship will be stronger.

To provide a test of Bauer et al.’s (2006) model, which conceptualized privacy concerns as a precursor to overall procedural justice perceptions, the direct path between privacy concerns and overall justice perceptions will also be tested and is included in Figure 1. Bauer et al.’s (2006) rationale and findings are consistent with Gilliland’s (1993) proposal that those who believe a procedure is invasive will also perceive it as less fair. In the SNS context, people with a lower privacy concerns are likely to perceive the procedural justice of a selection system using SNS data more positively.

**Hypothesis 5.** Privacy concerns will be negatively related to overall justice perceptions.

As demonstrated in Figure 1, it is proposed that privacy concerns moderate the relationship between perceived procedural justice rules and overall procedural justice

perceptions. Regardless of a person's privacy concerns, any individual should be able to perceive whether the rules of a selection system are procedurally just with relative accuracy, such as whether information discussed in an interview is relevant for a job. According to Gilliland (1993), after perceiving the procedural justice rules, a person then makes an overall judgment regarding the fairness of the selection procedures, and this is where privacy concerns should influence perceptions. Regardless of whether the questions asked in the interview are job-related, if an individual perceives the interview questions as having an actual level of privacy less than his or her desired level of privacy, he or she should perceive a violation, according to Altman (1976). This sense of violation should affect the overall perceived fairness because a procedure that violates one's privacy should not be viewed favorably by the individual.

## CHAPTER II

### METHOD: PILOT

The pilot study in this dissertation was conducted to test Hypothesis 1, to validate the objective justice rule manipulations developed for this study, and to identify the appropriate wording for the privacy concerns measure. This processes was iterative and as a result was repeated until final wording for each scenario was established.

**Participants.** The participants were recruited from Amazon's Mechanical Turk (mTurk). This sample was selected because these participants have been found to be more similar to employee samples demographically and produce data with similar reliabilities when compared to student samples (Behrend, Sharek, Meade, & Wiebe, 2011). As discussed by Landers and Behrend (2015), the issue of the validity of an mTurk sample is the same as any other convenience sample in psychological research: a particular convenience sample is appropriate in a given situation if the variables of interest neither suffer from range restriction nor are correlated with any omitted variables due to the use of that sample. These two issues determine the generalizability of findings from that sample to the broader population. In this case, students are likely to be severely range restricted in their exposure to real-world selection systems, which makes an mTurk sample better suited for this study than a student sample. For the reasons discussed previously regarding the sampling of Bauer et al. (2006), it is also important for the sample to be as similar as possible to employees demographically, especially in terms of age, and student samples are generally poorly demographically representative in this regard, as well. Given that Bauer et al. (2006) only found a significant relationship with computer experience in an employee sample, and not their student sample, was expected that in this study a student

sample would also provide insufficient variability regarding demographics related to privacy concerns in order to be generalizable to employee populations.

For the pilot, it was determined that at least 59 participants were needed for each round of testing. The sample size was determined by conducting a power analysis for an independent-samples t-test, which was the analysis used to determine between-group differences in procedural justice perceptions for the two conditions of each procedural justice rule. The effect size used was  $\rho=.35$ , which is the smallest effect size for the relationship between formal characteristics of the selection system and overall procedural justice found by Hausknecht et al. (2004). Leuke (2004) found larger correlations, so the Hausknecht et al. estimates were determined to be the most conservative. G\*Power estimated the sample size for a two-tailed t-test where  $\rho=.35$ , an  $\alpha=.05$ , and power is .80.

**Materials.** Scenarios were drafted for the high justice and low condition of each of the five procedural justice rules to be tested, where the rule was either upheld or violated in the scenario, respectively. Although selections systems often involve various hurdles such as selection tests and interviews, each of these scenarios focused only on the use of social networking data to make selection decisions, in order to isolate these effects. This controlled experiment ensured greater internal validity than possible in a field study, since applicants were not exposed to other aspects of selection, such as contact with a recruiter and interviews. This allowed the relationship between social network data collection and procedural justice to be measured independently of these other factors that may influence fairness perceptions. Further, for exploratory research such as this, hypothetical settings have been used previously in order to demonstrate “proof of concept” (Bauer et al., 2001; Bauer et al., 2006). These scenarios can be found in Appendix A.

**Measures.** In order to test causal impact of scenario design on perceptions, participants completed measures on justice perceptions and provided demographic information.

***Procedural justice rule perceptions.*** To measure procedural justice rule perceptions, participants were given five subscales of the Selection Procedural Justice Scale (SPJS; Bauer et al., 2001), which has been validated in prior research (Konradt, Warszta, & Ellwart, 2013; Lueke, 2004). All sixteen items from the job-relatedness (content), job-relatedness (predictive), opportunity to perform, reconsideration opportunity, and consistency of administration subscales were used, which were chosen due to their relevance to social media-based selection measures. All five of the subscales were administered following each scenario, to ensure participants are perceiving the justice manipulations in each scenario accurately. The items of the SPJS were also adapted to the proposed study in the following manner. The original items each refer to a test that participants had completed for consideration of a job. Because the proposed study involves reading scenarios about data collected from SNS during the selection process, the wording of the items was updated to refer to this data collection and that scenarios are hypothetical. The final list of items can be seen in Appendix B.

***Overall procedural justice perceptions.*** To measure overall procedural justice perceptions about the selection system, participants were given Truxillo and Bauer's (1999) measure of overall perceptions of procedural justice. This measure is based on a previous measure by Smither et al. (1993) who found the measure's scores to be correlated with perceived predictive validity and face validity, both of which are components of procedural justice theory (Gilliland, 1993). The measure consists of three items that have been adapted from the test score banding context to the SNS data in selection context. Truxillo and Bauer (1999) found the measure had an alpha of .81 in their sample, and it has since been used as an overall procedural

justice measure in several other studies (Bauer et al., 2001; Bauer et al., 2006). Truxillo and Bauer's (1999) study investigated the use of score banding and the original items refer to this procedure. The items were adapted slightly to the present context, as Bauer et al. had done (2006). Specifically, the wording was changed to no longer refer to the fairness of selection tests and instead inquire about social networking data used in selection by replacing the words "test banding" with "social media data". Participants were asked to rate the items according to their feelings toward the scenario they had just read. These items can be found in Appendix C.

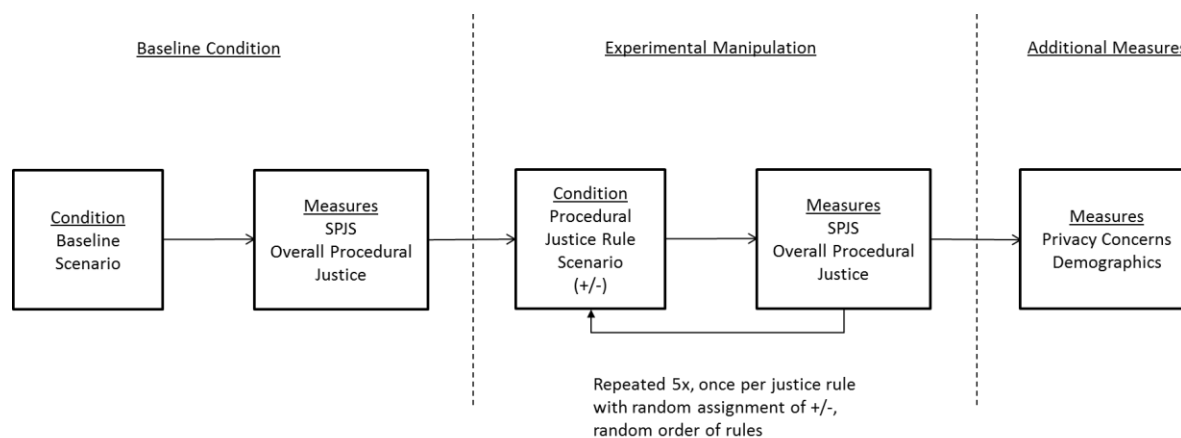
***Demographics.*** Demographics of participants were also collected in order to ensure the sample was representative of the workplace. Participants were asked to report their age, gender, race/ethnicity, and use of SNS. These items can be found in Appendix D.

***Privacy concerns.*** Privacy concerns were tested using Mohamed and Ahmed's (2012) 2-item adaptation of Dinev and Hart's (2004) privacy concerns model, as well as an additional two items from Dinev and Hart adapted in a similar fashion. Dinev and Hart's (2004) items were created to measure privacy concerns specifically in regards to information submitted over the internet, and Mohamed and Ahmed (2012) updated the wording slightly to reflect the context of SNS. Preibusch (2013) advocated for researchers to utilize existing measures of privacy, because much of the existing research includes measures developed and used in just one study. Braunstein, Granks, and Staddon (2011) found that wording in privacy concern measures was especially important when asking participants to subsequently report their attitudes toward sharing different kinds of information. If the privacy measure asked directly about a breach of internet security, participants appeared to be triggered to respond negatively toward sharing, which inflates privacy relationships. Preibusch (2013) echoed this concern and also recommended against using measures that have not been validated as this may also result in

inflated relationships. Mohamed and Ahmed's (2012) measure relies upon items that ask about information on SNS being used in unforeseen ways but not specifically about breaches of internet security, based on the Dinev and Hart (2004) measure. Although Preibusch (2013) noted that the Dinev and Hart (2004) measure had not been utilized extensively by other researchers, it was thoroughly validated by the developers, unlike many other measures found in the privacy literature. The set of adapted items is similar to the Mohamed and Ahmed (2012) version, but the wording is broader, simply referring to information about the participant on SNS to include all data that could be on a SNS about a person, submitted personally or not. The privacy concern measures and their items can be found in Appendix E.

**Procedure.** Each participant received instructions for a baseline scenario as well as 5 randomly assigned procedural justice rule conditions. The baseline condition was meant to represent a typical employee selection process, with an application and a selection test but no mention of the use of SNS data in the selection process. All participants received this condition prior to proceeding with the experimental conditions. This scenario was followed by one scenario per justice rule, randomly assigned to either a high or low justice condition, 5 scenarios in total. The order of the justice rules was counter-balanced, such that order of the rules was randomly generated for each participant. The counter-balancing was critical for this study because although participants were instructed to consider each scenario as a fresh vignette, unrelated to any of the others, participants may have been influenced by the prior scenarios. In order to account for this, the order was randomized to reduce the influence of any ordering effects. After each scenario, including the baseline condition, participants received the full SPJS measure and the measure of overall procedural justice. Once each scenario was viewed, participants received the other measures. This process is illustrated in Figure 3.





*Figure 2.* The process for participants receiving conditions and measures, as outlined in the method for the both the pilot and the full study.

This procedure is similar to that of Lueke (2004), who asked participants to read scenarios that upheld or violated Gilliland’s (1993) procedural justice rules and then rate their reactions to the selection scenarios. However, rather than assigning participants to read all of the scenarios that uphold the procedural justice rules *or* all of the scenarios that violate the procedural justice rules, participants in this study were randomly assigned to each condition within each procedural justice rule. This means that any one participant was unlikely to read only rules that violate procedural justice, for example, and that each participant rated a scenario for each procedural justice rule separately, allowing each rule to be investigated separately. To account for ordering effects, the order of the five procedural justice rules was randomized for each participant.

The study took participants approximately 20 minutes to complete in total, and participants were compensated for their time. For their participation in the pilot, each participant received \$1.50 for their participation, which is within the guidelines provided by Barger, Behrend, Sharek, and Sinar (2011), weighing payment standards for participants and desired time for completion of data collection.

### CHAPTER III

#### RESULTS: PILOT

##### **Pilot**

**Pilot stage 1.** For the first pilot stage, 81 participants were recruited from mTurk. Participants were removed from the sample due to careless responding, determined to be participants who answered 50% or fewer of the manipulation check items correctly, had a standard deviation of responses less than .2, and had a long string value of greater than 18 in a given condition. After this cleaning, 70 participants remained in the sample. Further, following the recommendations of Meade and Craig (2012), Mahalanobis distance was calculated for each condition and participants were removed whose scores exceeded the cutoff value, suggesting careless responding. These responses were then analyzed to determine the success of the manipulation, with participants who failed the manipulation check for a given scenario were excluded from the analysis for that scenario. T-tests were conducted to for each justice rule manipulation to test Hypothesis 1, and d-statistics were computed for all SPJS items for within each rule to test if participants accurately perceived which rule was being manipulated.

Results for the first pilot stage can be seen in Tables 1-5. For each justice rule, t-test results suggested that participants were able to distinguish between the high and low justice conditions for each associated SPJS item and for overall procedural justice scale items. However, considerable spillover was also detected. As shown in the table, participants were able to distinguish the reconsideration opportunity and consistency of administration rules, but the other rule manipulations were less clear to participants. This resulted not only in lower d-statistics for the related items, but higher d-statistics for unrelated items. For example, the d-statistics for the opportunity to perform SPJS items were as high as those for job relatedness content when

participants were rating the opportunity to perform scenarios. This suggests that although participants understood which condition had high or low justice, participants perceived the scenario to describe a manipulation of both justice rules. Some correlation is expected between the rules, but the amount of spillover was determined to be too great and it was decided that the scenarios needed to be rewritten.

After reviewing the results, all scenarios were reworded to speak directly to organizational data collection practices around social media profile data, rather than asking participants to imagine a social network site that applied to the justice rule. This approach was believed to be more generalizable across current and future social media platforms as well as improving the scenarios' clarity. The rewritten scenarios can be found in Appendix F.

Table 1

*Pilot Stage 1 T-Test Results for Job Relatedness Content*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.79	1.05	2.37	1.26	5.10	69	0.00	1.50
Job Relatedness Content Item 2	3.73	1.01	2.26	1.25	5.39	69	0.00	1.28
Job Relatedness Predict Item 1	3.61	0.90	3.03	1.08	2.44	69	0.00	0.97
Job Relatedness Predict Item 2	3.61	0.90	3.11	1.09	2.10	69	0.00	1.01
Opportunity to Perform Item 1	3.58	0.94	2.87	1.40	2.46	69	0.00	1.11
Opportunity to Perform Item 2	3.67	0.92	2.84	1.35	2.96	69	0.00	1.44
Opportunity to Perform Item 3	3.67	1.08	2.79	1.34	3.01	69	0.00	1.28
Opportunity to Perform Item 4	3.67	0.82	2.89	1.27	3.00	69	0.00	1.26
Reconsideration Opportunity Item 1	2.97	1.19	2.68	1.21	1.00	69	0.04	0.52
Reconsideration Opportunity Item 2	3.00	0.97	2.68	1.23	1.19	69	0.09	0.42
Reconsideration Opportunity Item 3	3.45	1.03	2.45	1.25	3.67	69	0.00	1.11
Reconsideration Opportunity Item 4	2.91	1.07	2.76	1.24	0.53	69	0.01	0.62
Reconsideration Opportunity Item 5	3.21	1.05	2.74	1.31	1.67	69	0.00	0.79
Consistency of Administration Item 1	3.79	0.93	3.39	1.28	1.46	69	0.24	0.35
Consistency of Administration Item 2	3.45	0.97	3.24	1.15	0.85	69	0.25	0.29
Consistency of Administration Item 3	3.61	0.97	3.45	1.25	0.59	69	0.97	-0.01
Overall Procedural Justice Reaction Item 1	3.64	1.08	2.58	1.46	3.41	69	0.00	1.15
Overall Procedural Justice Reaction Item 2	3.39	1.12	2.05	1.01	5.31	69	0.00	1.02
Overall Procedural Justice Reaction Item 3	3.52	1.00	2.45	1.37	3.70	69	0.00	1.08

Table 2

*Pilot Stage 1 T-Test Results for Job Relatedness Predict*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.54	1.09	1.94	1.07	6.14	67	0.00	1.50
Job Relatedness Content Item 2	3.49	1.22	2.00	1.13	5.24	67	0.00	1.28
Job Relatedness Predict Item 1	3.71	1.02	2.88	0.69	3.97	67	0.00	0.97
Job Relatedness Predict Item 2	3.74	1.01	2.82	0.83	4.12	67	0.00	1.01
Opportunity to Perform Item 1	3.57	1.22	2.29	1.12	4.54	67	0.00	1.11
Opportunity to Perform Item 2	3.74	1.12	2.18	1.09	5.89	67	0.00	1.44
Opportunity to Perform Item 3	3.63	1.24	2.21	1.01	5.22	67	0.00	1.28
Opportunity to Perform Item 4	3.63	1.14	2.24	1.10	5.16	67	0.00	1.26
Reconsideration Opportunity Item 1	2.83	1.01	2.32	0.94	2.14	67	0.04	0.52
Reconsideration Opportunity Item 2	2.89	1.02	2.47	0.99	1.71	67	0.09	0.42
Reconsideration Opportunity Item 3	3.29	1.05	2.12	1.09	4.53	67	0.00	1.11
Reconsideration Opportunity Item 4	3.00	0.91	2.47	0.83	2.53	67	0.01	0.62
Reconsideration Opportunity Item 5	3.09	1.04	2.29	1.00	3.22	67	0.00	0.79
Consistency of Administration Item 1	3.60	1.09	3.29	1.03	1.20	67	0.24	0.35
Consistency of Administration Item 2	3.57	1.04	3.26	1.14	1.17	67	0.25	0.29
Consistency of Administration Item 3	3.37	1.09	3.38	1.10	-0.04	67	0.97	-0.01
Overall Procedural Justice Reaction Item 1	3.17	1.20	1.94	0.95	4.71	67	0.00	1.15
Overall Procedural Justice Reaction Item 2	3.03	1.29	1.85	1.02	4.18	67	0.00	1.02
Overall Procedural Justice Reaction Item 3	3.14	1.26	1.94	0.98	4.40	67	0.00	1.08

Table 3

*Pilot Stage 1 T-Test Results for Opportunity to Perform*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.56	1.39	1.84	0.83	6.35	67	0.00	1.55
Job Relatedness Content Item 2	3.75	1.24	1.89	0.94	7.06	67	0.00	1.73
Job Relatedness Predict Item 1	3.69	1.00	2.49	1.22	4.44	67	0.00	1.08
Job Relatedness Predict Item 2	3.53	0.95	2.43	0.93	4.85	67	0.00	1.18
Opportunity to Perform Item 1	3.88	1.18	2.11	1.10	6.42	67	0.00	1.57
Opportunity to Perform Item 2	3.72	1.25	2.16	1.12	5.46	67	0.00	1.33
Opportunity to Perform Item 3	3.94	1.08	2.16	1.09	6.78	67	0.00	1.66
Opportunity to Perform Item 4	3.63	1.29	2.38	1.14	4.27	67	0.00	1.04
Reconsideration Opportunity Item 1	3.03	1.00	2.24	1.01	3.25	67	0.00	0.79
Reconsideration Opportunity Item 2	3.13	1.04	2.16	0.90	4.13	67	0.00	1.01
Reconsideration Opportunity Item 3	3.31	1.35	1.92	0.86	5.17	67	0.00	1.26
Reconsideration Opportunity Item 4	3.13	1.07	2.38	0.95	3.07	67	0.00	0.75
Reconsideration Opportunity Item 5	3.25	1.22	2.11	1.02	4.24	67	0.00	1.03
Consistency of Administration Item 1	3.66	0.97	3.30	1.05	1.47	67	0.15	0.36
Consistency of Administration Item 2	3.50	1.08	3.16	1.09	1.29	67	0.20	0.31
Consistency of Administration Item 3	3.41	1.01	3.22	1.20	0.70	67	0.48	0.17
Overall Procedural Justice Reaction Item 1	3.44	1.48	2.00	1.08	4.65	67	0.00	1.14
Overall Procedural Justice Reaction Item 2	3.34	1.36	1.65	0.79	6.44	67	0.00	1.57
Overall Procedural Justice Reaction Item 3	3.38	1.26	2.00	1.00	5.04	67	0.00	1.23

Table 4

*Pilot Stage 1 T-Test Results for Reconsideration Opportunity*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.09	1.06	2.06	0.93	4.14	63	0.00	1.04
Job Relatedness Content Item 2	3.09	1.19	2.13	0.92	3.61	63	0.00	0.91
Job Relatedness Predict Item 1	3.38	0.92	2.74	0.82	2.96	63	0.00	0.74
Job Relatedness Predict Item 2	3.50	0.86	2.77	0.84	3.42	63	0.00	0.86
Opportunity to Perform Item 1	3.53	1.11	2.52	1.12	3.66	63	0.00	0.92
Opportunity to Perform Item 2	3.41	1.08	2.58	1.12	3.05	63	0.00	0.77
Opportunity to Perform Item 3	3.35	0.88	2.35	1.11	4.02	63	0.00	1.01
Opportunity to Perform Item 4	3.59	1.02	2.45	1.18	4.17	63	0.00	1.05
Reconsideration Opportunity Item 1	4.09	0.97	1.55	0.77	11.67	63	0.00	2.94
Reconsideration Opportunity Item 2	4.26	0.83	1.45	0.57	15.82	63	0.00	3.99
Reconsideration Opportunity Item 3	3.56	1.24	1.84	0.90	6.37	63	0.00	1.60
Reconsideration Opportunity Item 4	4.29	0.80	1.52	0.68	15.05	63	0.00	3.79
Reconsideration Opportunity Item 5	3.74	1.08	1.77	0.96	7.71	63	0.00	1.94
Consistency of Administration Item 1	3.71	0.87	3.48	1.12	0.90	63	0.37	0.23
Consistency of Administration Item 2	3.88	0.88	3.39	1.05	2.06	63	0.04	0.52
Consistency of Administration Item 3	3.62	0.99	3.48	1.12	0.51	63	0.61	0.13
Overall Procedural Justice Reaction Item 1	3.32	1.25	2.06	1.03	4.41	63	0.00	1.11
Overall Procedural Justice Reaction Item 2	3.09	1.22	1.77	0.84	5.01	63	0.00	1.26
Overall Procedural Justice Reaction Item 3	3.38	1.16	2.10	1.08	4.63	63	0.00	1.17

Table 5

*Pilot Stage 1 T-Test Results for Consistency of Administration*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.35	1.11	2.28	1.18	3.93	69	0.00	0.95
Job Relatedness Content Item 2	3.06	1.00	2.30	1.07	3.08	69	0.00	0.74
Job Relatedness Predict Item 1	3.39	0.99	2.98	1.03	1.71	69	0.09	0.41
Job Relatedness Predict Item 2	3.55	0.85	2.98	0.83	2.85	69	0.01	0.69
Opportunity to Perform Item 1	3.10	1.08	2.80	1.09	1.14	69	0.26	0.28
Opportunity to Perform Item 2	3.23	1.09	2.75	1.19	1.73	69	0.09	0.42
Opportunity to Perform Item 3	3.19	1.08	2.83	1.22	1.33	69	0.19	0.32
Opportunity to Perform Item 4	3.13	1.15	2.68	1.14	1.66	69	0.10	0.40
Reconsideration Opportunity Item 1	3.00	0.97	2.43	1.06	2.36	69	0.02	0.57
Reconsideration Opportunity Item 2	3.06	1.03	2.45	1.11	2.39	69	0.02	0.58
Reconsideration Opportunity Item 3	3.35	1.11	2.10	1.19	4.52	69	0.00	1.09
Reconsideration Opportunity Item 4	3.13	0.99	2.53	0.96	2.59	69	0.01	0.62
Reconsideration Opportunity Item 5	3.52	1.03	2.23	1.05	5.19	69	0.00	1.25
Consistency of Administration Item 1	4.23	0.84	1.98	1.19	8.94	69	0.00	2.15
Consistency of Administration Item 2	3.90	0.91	1.85	1.21	7.88	69	0.00	1.90
Consistency of Administration Item 3	3.65	1.11	2.10	1.26	5.40	69	0.00	1.30
Overall Procedural Justice Reaction Item 1	3.32	1.08	1.75	0.98	6.42	69	0.00	1.55
Overall Procedural Justice Reaction Item 2	3.06	1.06	1.90	1.26	4.14	69	0.00	1.00
Overall Procedural Justice Reaction Item 3	3.26	1.03	1.90	1.17	5.10	69	0.00	1.23



**Pilot stage 2.** All of the updated scenarios were tested in a new sample from mTurk consisting of 103 participants. After being cleaned according to the same rules as the prior pilot stage, 68 participants remained for the analysis. The results can be seen in Tables 6-10. With the exception of job relatedness predict, for each justice rule, t-test results suggested that participants were able to distinguish between the high and low justice conditions for each associated SPJS item and for overall procedural justice scale items. The job relatedness content scenario's performance improved while the reconsideration opportunity and consistency of administration scenarios continued to perform well as participants could distinguish those rules from the others. However, the d-statistics showed that there was still considerable spillover across conditions for the job relatedness predict and opportunity to perform conditions.

The two scenarios that were underperforming were revised again to improve their clarity. The job relatedness predict scenario was revised to directly reference research on employee selection in an effort to strengthen its effect. This is a potential threat to external validity, but it was decided that it was worthwhile to favor internal validity in order to effectively manipulate the justice rule. Opportunity to perform was also revised, with the low justice wording being made stronger in an effort to strengthen its impact on perceptions. Again, this is a potential threat to external validity, but the tradeoff for greater insight into applicant perceptions of specific practices was determined to be worthwhile. The revisions can be found in Appendix G.

Table 6

*Pilot Stage 2 T-Test Results for Job Relatedness Content*

	High Justice		Low Justice		<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.38	1.05	1.77	0.87	6.90	66	0.00	1.70
Job Relatedness Content Item 2	3.55	0.91	1.92	0.87	7.49	66	0.00	1.84
Job Relatedness Predict Item 1	3.24	0.95	3.08	0.84	0.76	66	0.45	0.19
Job Relatedness Predict Item 2	3.24	0.79	2.97	0.90	1.27	66	0.21	0.31
Opportunity to Perform Item 1	3.17	1.07	2.69	1.13	1.77	66	0.08	0.44
Opportunity to Perform Item 2	3.24	1.12	2.72	1.17	1.86	66	0.07	0.46
Opportunity to Perform Item 3	3.21	1.05	2.82	1.19	1.39	66	0.17	0.34
Opportunity to Perform Item 4	3.17	1.07	2.79	1.17	1.36	66	0.18	0.34
Reconsideration Opportunity Item 1	2.72	1.03	2.38	1.07	1.32	66	0.19	0.32
Reconsideration Opportunity Item 2	2.62	0.90	2.38	1.14	0.92	66	0.36	0.23
Reconsideration Opportunity Item 3	3.03	1.21	2.00	1.08	3.72	66	0.00	0.92
Reconsideration Opportunity Item 4	2.83	0.97	2.44	0.99	1.63	66	0.11	0.40
Reconsideration Opportunity Item 5	2.83	1.14	2.21	1.06	2.33	66	0.02	0.57
Consistency of Administration Item 1	3.31	1.20	3.08	1.22	0.79	66	0.44	0.19
Consistency of Administration Item 2	3.45	1.06	3.00	1.19	1.61	66	0.11	0.40
Consistency of Administration Item 3	3.21	1.01	3.10	1.17	0.39	66	0.70	0.09
Overall Procedural Justice Reaction Item 1	3.07	1.16	1.85	1.06	4.50	66	0.00	1.11
Overall Procedural Justice Reaction Item 2	2.86	1.33	1.72	1.02	4.01	66	0.00	1.08
Overall Procedural Justice Reaction Item 3	3.21	1.24	1.95	1.21	4.20	66	0.00	1.03

Table 7

*Pilot Stage 2 T-Test Results for Job Relatedness Predict*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.21	1.18	2.41	1.26	2.58	61	0.01	0.66
Job Relatedness Content Item 2	3.21	1.18	2.50	1.24	2.31	61	0.02	0.59
Job Relatedness Predict Item 1	3.38	0.73	3.18	0.83	1.02	61	0.31	0.26
Job Relatedness Predict Item 2	3.38	0.73	3.35	0.85	0.13	61	0.90	0.03
Opportunity to Perform Item 1	3.00	1.13	3.09	1.08	-0.32	61	0.75	-0.08
Opportunity to Perform Item 2	3.03	1.05	2.97	1.00	0.25	61	0.81	0.06
Opportunity to Perform Item 3	3.07	1.07	3.09	1.14	-0.07	61	0.95	-0.02
Opportunity to Perform Item 4	3.07	1.28	3.26	1.05	-0.67	61	0.51	-0.17
Reconsideration Opportunity Item 1	2.83	0.93	2.56	1.19	0.99	61	0.33	0.26
Reconsideration Opportunity Item 2	2.79	0.90	2.71	1.09	0.34	61	0.73	0.09
Reconsideration Opportunity Item 3	2.66	1.26	2.71	1.29	-0.16	61	0.88	-0.04
Reconsideration Opportunity Item 4	2.86	0.95	2.53	1.16	1.23	61	0.22	0.31
Reconsideration Opportunity Item 5	2.66	1.01	2.65	1.20	0.03	61	0.98	0.01
Consistency of Administration Item 1	3.69	1.00	3.32	1.12	1.36	61	0.18	0.19
Consistency of Administration Item 2	3.34	1.11	3.29	1.14	0.18	61	0.86	0.05
Consistency of Administration Item 3	3.10	1.14	3.21	0.98	-0.38	61	0.70	-0.10
Overall Procedural Justice Reaction Item 1	2.48	1.35	2.56	1.33	-0.22	61	0.82	-0.06
Overall Procedural Justice Reaction Item 2	2.52	1.27	2.29	1.31	0.68	61	0.50	0.17
Overall Procedural Justice Reaction Item 3	2.52	1.24	2.53	1.28	-0.04	61	0.97	-0.01

Table 8

*Pilot Stage 2 T-Test Results for Opportunity to Perform*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.52	0.91	2.61	1.29	3.19	63	0.00	0.84
Job Relatedness Content Item 2	3.59	0.87	2.75	1.23	3.10	63	0.00	0.82
Job Relatedness Predict Item 1	3.41	0.82	3.28	0.70	0.72	63	0.48	0.18
Job Relatedness Predict Item 2	3.28	0.70	3.25	0.65	0.15	63	0.88	0.04
Opportunity to Perform Item 1	3.86	0.95	3.06	1.04	3.22	63	0.00	0.81
Opportunity to Perform Item 2	4.00	0.85	3.03	1.08	3.96	63	0.00	1.00
Opportunity to Perform Item 3	3.90	0.94	2.97	1.00	3.81	63	0.00	0.96
Opportunity to Perform Item 4	3.93	0.96	2.97	1.13	3.62	63	0.00	0.91
Reconsideration Opportunity Item 1	3.03	0.87	2.50	0.94	2.36	63	0.02	0.59
Reconsideration Opportunity Item 2	3.10	0.86	2.67	0.93	1.95	63	0.06	0.49
Reconsideration Opportunity Item 3	3.03	1.05	2.31	1.12	2.68	63	0.01	0.68
Reconsideration Opportunity Item 4	3.10	0.86	2.69	1.21	1.53	63	0.13	0.39
Reconsideration Opportunity Item 5	3.14	0.92	2.50	0.97	2.70	63	0.01	0.68
Consistency of Administration Item 1	3.55	0.91	3.28	1.16	1.04	63	0.30	0.26
Consistency of Administration Item 2	3.52	0.87	2.94	1.15	2.22	63	0.03	0.56
Consistency of Administration Item 3	3.38	0.86	3.33	0.99	0.20	63	0.84	0.05
Overall Procedural Justice Reaction Item 1	3.21	1.15	2.28	1.26	3.08	63	0.00	0.78
Overall Procedural Justice Reaction Item 2	3.28	1.22	2.31	1.21	3.19	63	0.00	0.80
Overall Procedural Justice Reaction Item 3	3.14	1.09	2.17	1.11	3.53	63	0.00	0.89

Table 9

*Pilot Stage 2 T-Test Results for Reconsideration Opportunity*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	2.91	1.07	2.24	1.03	2.64	66	0.01	0.65
Job Relatedness Content Item 2	3.11	1.08	2.27	0.91	3.47	66	0.00	0.85
Job Relatedness Predict Item 1	3.60	0.77	3.00	0.75	3.24	66	0.00	0.80
Job Relatedness Predict Item 2	3.57	0.74	3.03	0.77	2.96	66	0.00	0.73
Opportunity to Perform Item 1	3.51	1.01	2.67	1.05	3.39	66	0.00	0.83
Opportunity to Perform Item 2	3.54	1.09	2.70	1.13	3.13	66	0.00	0.77
Opportunity to Perform Item 3	3.46	0.98	2.79	1.11	2.64	66	0.01	0.65
Opportunity to Perform Item 4	3.57	1.01	2.73	1.04	3.40	66	0.00	0.84
Reconsideration Opportunity Item 1	4.23	0.73	1.58	0.79	14.36	66	0.00	3.54
Reconsideration Opportunity Item 2	4.37	0.77	1.52	0.80	15.04	66	0.00	3.70
Reconsideration Opportunity Item 3	3.49	1.09	1.79	1.02	6.60	66	0.00	1.62
Reconsideration Opportunity Item 4	4.46	0.61	1.70	1.10	12.86	66	0.00	3.61
Reconsideration Opportunity Item 5	3.80	1.08	1.73	1.13	7.75	66	0.00	1.91
Consistency of Administration Item 1	3.71	0.93	3.33	1.14	1.52	66	0.13	0.37
Consistency of Administration Item 2	3.89	0.83	3.15	1.18	2.99	66	0.00	0.74
Consistency of Administration Item 3	3.26	0.95	3.00	1.03	1.07	66	0.29	0.26
Overall Procedural Justice Reaction Item 1	3.00	1.24	1.79	1.08	4.29	66	0.00	1.06
Overall Procedural Justice Reaction Item 2	2.91	1.40	1.70	0.98	4.12	66	0.00	1.07
Overall Procedural Justice Reaction Item 3	3.29	1.20	1.88	1.17	4.89	66	0.00	1.20

Table 10

*Pilot Stage 2 T-Test Results for Consistency of Administration*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	2.90	1.14	2.48	1.06	1.52	62	0.13	0.39
Job Relatedness Content Item 2	3.03	1.22	2.21	0.99	2.95	62	0.00	0.75
Job Relatedness Predict Item 1	3.52	0.81	3.21	0.82	1.49	62	0.14	0.38
Job Relatedness Predict Item 2	3.48	0.85	3.36	0.55	0.68	62	0.50	0.19
Opportunity to Perform Item 1	3.26	1.03	2.82	1.16	1.60	62	0.11	0.41
Opportunity to Perform Item 2	3.23	1.09	3.00	1.15	0.81	62	0.42	0.21
Opportunity to Perform Item 3	3.35	1.08	2.76	1.17	2.11	62	0.04	0.54
Opportunity to Perform Item 4	3.13	1.06	2.91	1.13	0.80	62	0.42	0.20
Reconsideration Opportunity Item 1	2.90	1.08	2.61	0.86	1.22	62	0.23	0.31
Reconsideration Opportunity Item 2	2.94	1.12	2.76	0.79	0.74	62	0.46	0.19
Reconsideration Opportunity Item 3	2.94	1.21	2.27	1.01	2.39	62	0.02	0.61
Reconsideration Opportunity Item 4	3.03	1.14	2.73	0.98	1.15	62	0.25	0.29
Reconsideration Opportunity Item 5	2.90	1.11	2.33	1.05	2.11	62	0.04	0.54
Consistency of Administration Item 1	4.23	0.96	2.09	0.98	8.81	62	0.00	2.24
Consistency of Administration Item 2	3.97	1.02	2.33	1.27	5.67	62	0.00	1.44
Consistency of Administration Item 3	3.71	1.19	2.36	1.08	4.74	62	0.00	1.20
Overall Procedural Justice Reaction Item 1	3.00	1.37	2.09	1.23	2.80	62	0.01	0.71
Overall Procedural Justice Reaction Item 2	2.94	1.41	2.12	1.17	2.52	62	0.01	0.64
Overall Procedural Justice Reaction Item 3	3.16	1.42	2.12	1.22	3.15	62	0.00	0.80

**Pilot stage 3.** Another sample of 103 participants was recruited from mTurk to test these revisions, using the same methodology as the prior pilot stages. The same cleaning procedures were followed from the previous pilot tests, leaving 76 participants in total for pilot stage 3. The results for these scenarios can be found in Tables 11-15. Unfortunately, the newer wording of the scenarios were not performing better for either job relatedness predict nor opportunity to perform. For the job relatedness predict items, participants failed the manipulation check in greater numbers than previously seen, with only 58% of those in the low justice condition correctly answering the manipulation check item. Given that this version of wording for job relatedness to predict was the strongest and yet participants still had difficulty distinguishing it from job relatedness content (although the job relatedness content scenario performed well), it was decided that the full study would only include the job relatedness content scenario. This decision breaks from Bauer et al. (2001), however, it is consistent with Gilliland's (1993) original model of procedural justice, as well as the decisions of other researchers who have sought to manipulate justice rules (Lueke, 2004; Wallace, Page, & Lippstreu, 2006). The opportunity to perform scenario wording needed to be revised to improve clarity. A prior version of the wording was determined to be more successful, and it was reworked to be more consistent with the tone of the other scenarios (see Appendix H).

Table 11

*Pilot Stage 3 T-Test Results for Job Relatedness Content*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.24	1.21	1.90	1.12	4.66	65	0.00	1.16
Job Relatedness Content Item 2	3.19	1.29	1.73	1.14	4.84	65	0.00	1.20
Job Relatedness Predict Item 1	3.27	0.96	2.83	0.87	1.93	65	0.06	0.48
Job Relatedness Predict Item 2	3.22	0.85	2.70	0.84	2.48	65	0.02	0.62
Opportunity to Perform Item 1	3.22	1.20	2.40	1.22	2.74	65	0.01	0.68
Opportunity to Perform Item 2	3.46	1.30	2.23	1.10	4.09	65	0.00	1.02
Opportunity to Perform Item 3	3.24	1.19	2.27	1.11	3.44	65	0.00	0.85
Opportunity to Perform Item 4	3.35	1.16	2.23	0.90	4.33	65	0.00	1.07
Reconsideration Opportunity Item 1	2.65	1.03	2.40	1.04	0.98	65	0.33	0.24
Reconsideration Opportunity Item 2	2.68	1.06	2.50	0.97	0.70	65	0.49	0.17
Reconsideration Opportunity Item 3	2.65	1.16	2.07	1.23	1.99	65	0.05	0.49
Reconsideration Opportunity Item 4	2.57	0.93	2.53	0.97	0.15	65	0.88	0.04
Reconsideration Opportunity Item 5	2.84	1.09	2.30	1.09	2.01	65	0.05	0.50
Consistency of Administration Item 1	3.57	1.17	3.33	1.18	0.81	65	0.42	0.20
Consistency of Administration Item 2	3.30	1.22	3.03	1.16	0.90	65	0.37	0.22
Consistency of Administration Item 3	3.19	1.15	3.13	1.14	0.20	65	0.84	0.05
Overall Procedural Justice Reaction Item 1	2.68	1.23	1.93	1.14	2.54	65	0.01	0.63
Overall Procedural Justice Reaction Item 2	2.57	1.26	1.93	1.11	2.16	65	0.03	0.54
Overall Procedural Justice Reaction Item 3	2.78	1.23	2.13	1.17	2.20	65	0.03	0.55



Table 12

*Pilot Stage 3 T-Test Results for Job Relatedness Predict*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	2.78	1.31	2.05	1.13	2.01	49	0.05	0.58
Job Relatedness Content Item 2	2.66	1.31	2.00	0.88	1.93	49	0.06	0.62
Job Relatedness Predict Item 1	3.13	0.91	2.79	0.92	1.27	49	0.21	0.36
Job Relatedness Predict Item 2	3.31	0.74	2.79	1.03	2.11	49	0.04	0.60
Opportunity to Perform Item 1	2.81	1.09	2.89	1.33	-0.24	49	0.81	-0.07
Opportunity to Perform Item 2	2.75	1.24	2.79	1.27	-0.11	49	0.91	-0.03
Opportunity to Perform Item 3	2.78	1.26	2.68	1.25	0.27	49	0.79	0.08
Opportunity to Perform Item 4	2.84	1.11	2.79	1.13	0.17	49	0.87	0.05
Reconsideration Opportunity Item 1	2.41	1.10	2.32	0.82	0.31	49	0.76	0.10
Reconsideration Opportunity Item 2	2.44	0.95	2.47	0.96	-0.13	49	0.90	-0.04
Reconsideration Opportunity Item 3	2.38	1.16	2.11	1.10	0.82	49	0.42	0.23
Reconsideration Opportunity Item 4	2.44	1.01	2.26	0.93	0.61	49	0.54	0.17
Reconsideration Opportunity Item 5	2.56	1.01	2.47	0.96	0.31	49	0.76	0.09
Consistency of Administration Item 1	3.59	1.24	3.89	0.81	-0.94	49	0.35	0.20
Consistency of Administration Item 2	3.28	1.35	3.42	0.90	-0.40	49	0.69	-0.13
Consistency of Administration Item 3	3.53	1.32	3.47	0.96	0.17	49	0.87	0.05
Overall Procedural Justice Reaction Item 1	2.34	1.33	1.84	0.96	1.43	49	0.16	0.45
Overall Procedural Justice Reaction Item 2	2.22	1.34	1.68	0.89	1.55	49	0.13	0.49
Overall Procedural Justice Reaction Item 3	2.41	1.29	1.84	1.07	1.60	49	0.12	0.46

Table 13

*Pilot Stage 3 T-Test Results for Opportunity to Perform*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.41	1.34	2.55	1.25	2.68	63	0.01	0.67
Job Relatedness Content Item 2	3.66	1.31	2.48	1.12	3.88	63	0.00	0.98
Job Relatedness Predict Item 1	3.50	0.88	3.03	0.81	2.24	63	0.03	0.56
Job Relatedness Predict Item 2	3.53	0.84	3.12	0.78	2.04	63	0.05	0.51
Opportunity to Perform Item 1	3.84	1.25	2.76	1.12	3.70	63	0.00	0.93
Opportunity to Perform Item 2	3.72	1.22	2.70	1.02	3.67	63	0.00	0.92
Opportunity to Perform Item 3	3.91	1.12	2.76	1.03	4.31	63	0.00	1.09
Opportunity to Perform Item 4	3.78	1.10	2.73	1.04	3.97	63	0.00	1.00
Reconsideration Opportunity Item 1	3.13	1.10	2.24	1.15	3.17	63	0.00	0.80
Reconsideration Opportunity Item 2	3.22	1.13	2.42	1.12	2.85	63	0.01	0.72
Reconsideration Opportunity Item 3	3.38	1.31	2.18	1.13	3.93	63	0.00	0.99
Reconsideration Opportunity Item 4	3.06	1.11	2.27	1.18	2.78	63	0.01	0.70
Reconsideration Opportunity Item 5	3.31	1.18	2.48	1.20	2.81	63	0.01	0.71
Consistency of Administration Item 1	3.59	1.32	2.91	1.07	2.30	63	0.03	0.58
Consistency of Administration Item 2	3.66	1.29	3.03	1.07	2.13	63	0.04	0.54
Consistency of Administration Item 3	3.78	1.18	2.91	1.18	2.97	63	0.00	0.75
Overall Procedural Justice Reaction Item 1	3.34	1.45	2.09	1.10	3.93	63	0.00	1.03
Overall Procedural Justice Reaction Item 2	3.28	1.40	2.09	1.13	3.79	63	0.00	0.98
Overall Procedural Justice Reaction Item 3	3.31	1.31	2.18	1.16	3.70	63	0.00	0.93

Table 14

*Pilot Stage 3 T-Test Results for Reconsideration Opportunity*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	2.82	1.17	2.21	1.11	2.13	61	0.04	0.55
Job Relatedness Content Item 2	2.71	1.12	1.93	0.75	3.17	61	0.00	0.86
Job Relatedness Predict Item 1	3.24	0.82	2.90	1.01	1.47	61	0.15	0.38
Job Relatedness Predict Item 2	3.26	0.83	2.90	1.01	1.59	61	0.12	0.41
Opportunity to Perform Item 1	3.21	1.32	2.62	1.18	1.84	61	0.07	0.47
Opportunity to Perform Item 2	3.00	1.30	2.76	1.09	0.79	61	0.43	0.20
Opportunity to Perform Item 3	3.00	1.18	2.66	1.20	1.15	61	0.26	0.29
Opportunity to Perform Item 4	3.09	1.31	2.55	1.18	1.69	61	0.10	0.43
Reconsideration Opportunity Item 1	3.97	1.17	1.69	0.93	8.47	61	0.00	2.17
Reconsideration Opportunity Item 2	4.06	1.04	1.83	1.14	8.12	61	0.00	2.08
Reconsideration Opportunity Item 3	3.21	1.34	1.79	1.01	4.65	61	0.00	1.22
Reconsideration Opportunity Item 4	4.29	0.91	1.66	1.08	10.56	61	0.00	2.70
Reconsideration Opportunity Item 5	3.68	1.15	1.72	1.00	7.15	61	0.00	1.83
Consistency of Administration Item 1	3.85	1.05	3.17	1.14	2.47	61	0.02	0.63
Consistency of Administration Item 2	3.74	1.16	3.24	1.09	1.73	61	0.09	0.44
Consistency of Administration Item 3	3.41	1.18	3.28	1.25	0.44	61	0.66	0.11
Overall Procedural Justice Reaction Item 1	2.79	1.27	1.90	1.05	3.02	61	0.00	0.79
Overall Procedural Justice Reaction Item 2	2.76	1.33	1.69	0.71	3.91	61	0.00	1.13
Overall Procedural Justice Reaction Item 3	2.88	1.20	2.14	1.33	2.34	61	0.02	0.60

Table 15

*Pilot Stage 3 T-Test Results for Consistency of Administration*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.03	1.03	1.97	1.15	3.82	59	0.00	0.99
Job Relatedness Content Item 2	2.91	1.06	2.00	1.04	3.37	59	0.00	0.88
Job Relatedness Predict Item 1	3.44	0.67	2.93	0.96	2.41	59	0.02	0.63
Job Relatedness Predict Item 2	3.41	0.67	3.00	0.89	2.04	59	0.05	0.53
Opportunity to Perform Item 1	3.31	1.03	2.59	1.05	2.72	59	0.01	0.71
Opportunity to Perform Item 2	3.47	1.11	2.59	1.12	3.09	59	0.00	0.81
Opportunity to Perform Item 3	3.25	0.95	2.28	1.00	3.91	59	0.00	1.02
Opportunity to Perform Item 4	3.25	1.14	2.38	1.24	2.87	59	0.01	0.75
Reconsideration Opportunity Item 1	2.88	1.18	2.28	1.10	2.04	59	0.05	0.53
Reconsideration Opportunity Item 2	3.00	1.11	2.38	1.01	2.27	59	0.03	0.59
Reconsideration Opportunity Item 3	3.00	1.16	1.97	1.02	3.68	59	0.00	0.96
Reconsideration Opportunity Item 4	3.09	1.06	2.21	1.05	3.28	59	0.00	0.85
Reconsideration Opportunity Item 5	3.13	1.01	2.21	1.24	3.19	59	0.00	0.83
Consistency of Administration Item 1	4.19	0.93	2.14	1.13	7.78	59	0.00	2.03
Consistency of Administration Item 2	4.16	0.92	1.93	1.00	9.07	59	0.00	2.36
Consistency of Administration Item 3	3.94	1.05	2.45	1.24	5.08	59	0.00	1.32
Overall Procedural Justice Reaction Item 1	3.22	1.21	1.62	0.94	5.71	59	0.00	1.49
Overall Procedural Justice Reaction Item 2	2.91	1.20	1.86	1.03	3.63	59	0.00	0.95
Overall Procedural Justice Reaction Item 3	3.31	1.12	1.97	1.05	4.83	59	0.00	1.26

**Pilot stage 4.** A sample was collected on mTurk to test the final wording of the scenarios, with a total of 90 participants. The same method for data cleaning was used as the prior studies, which reduced the final sample to 65 participants. Results for the final wording can be found in Tables 16-19. There was still overlap between the opportunity to perform scenario and the job relatedness content items, but those concepts were expected to be correlated, as the Hausknecht et al. (2004) meta-analysis found the relationship between face validity and opportunity to perform ( $\rho=.59$ ) to be similar to the relationship between face validity and perceived predictive validity ( $\rho=.60$ ). However, the t-test results suggested that participants were able to distinguish between the high and low justice conditions. As a result, the wording was determined to be satisfactory for the full study.

Table 16

*Pilot Stage 4 T-Test Results for Job Relatedness Content*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.48	1.06	2.31	1.23	4.11	63	0.00	1.04
Job Relatedness Content Item 2	3.70	1.16	2.06	1.05	5.97	63	0.00	1.50
Job Relatedness Predict Item 1	3.48	0.87	2.91	0.89	2.65	63	0.01	0.67
Job Relatedness Predict Item 2	3.36	0.65	3.22	0.91	0.74	63	0.46	0.19
Opportunity to Perform Item 1	3.45	0.94	2.72	1.05	2.97	63	0.00	0.75
Opportunity to Perform Item 2	3.45	0.90	2.75	1.02	2.96	63	0.00	0.74
Opportunity to Perform Item 3	3.45	0.87	2.59	0.87	3.98	63	0.00	1.00
Opportunity to Perform Item 4	3.45	1.00	2.88	1.01	2.32	63	0.02	0.59
Reconsideration Opportunity Item 1	2.88	1.02	2.69	1.09	0.73	63	0.47	0.18
Reconsideration Opportunity Item 2	2.94	0.97	2.50	0.95	1.85	63	0.07	0.47
Reconsideration Opportunity Item 3	2.88	1.14	2.25	1.16	2.20	63	0.03	0.55
Reconsideration Opportunity Item 4	2.97	0.92	2.56	1.01	1.70	63	0.09	0.43
Reconsideration Opportunity Item 5	3.03	0.92	2.38	1.21	2.46	63	0.02	0.62
Consistency of Administration Item 1	3.58	0.97	3.38	1.10	0.78	63	0.44	0.20
Consistency of Administration Item 2	3.48	1.00	3.16	1.02	1.31	63	0.20	0.33
Consistency of Administration Item 3	3.24	1.00	3.28	1.25	-0.14	63	0.89	-0.04
Overall Procedural Justice Reaction Item 1	3.18	1.31	2.19	1.09	3.32	63	0.00	0.85
Overall Procedural Justice Reaction Item 2	3.00	1.30	2.16	1.19	2.72	63	0.01	0.69
Overall Procedural Justice Reaction Item 3	3.30	1.24	2.22	1.04	3.82	63	0.00	0.96

Table 17

*Pilot Stage 4 T-Test Results for Opportunity to Perform*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.85	0.83	1.97	1.05	8.07	64	0.00	2.02
Job Relatedness Content Item 2	3.79	0.82	1.70	0.81	10.42	64	0.00	2.61
Job Relatedness Predict Item 1	3.64	0.74	2.45	0.75	6.42	64	0.00	1.60
Job Relatedness Predict Item 2	3.42	0.75	2.58	0.79	4.47	64	0.00	1.12
Opportunity to Perform Item 1	3.82	0.95	1.94	0.97	7.96	64	0.00	1.99
Opportunity to Perform Item 2	3.70	0.92	1.88	0.78	8.67	64	0.00	2.17
Opportunity to Perform Item 3	3.70	0.98	1.94	0.75	8.17	64	0.00	2.04
Opportunity to Perform Item 4	3.79	0.82	2.09	0.77	8.69	64	0.00	2.17
Reconsideration Opportunity Item 1	3.06	0.97	2.30	0.85	3.39	64	0.00	0.85
Reconsideration Opportunity Item 2	3.15	1.09	2.30	0.95	3.36	64	0.00	0.84
Reconsideration Opportunity Item 3	3.33	1.05	1.79	0.82	6.66	64	0.00	1.67
Reconsideration Opportunity Item 4	3.09	1.04	2.30	1.02	3.11	64	0.00	0.78
Reconsideration Opportunity Item 5	3.27	1.04	2.15	1.00	4.46	64	0.00	1.11
Consistency of Administration Item 1	3.58	0.97	3.36	1.08	0.84	64	0.41	0.21
Consistency of Administration Item 2	3.39	0.86	3.30	1.13	0.37	64	0.71	0.09
Consistency of Administration Item 3	3.45	0.94	3.21	1.08	0.97	64	0.33	0.24
Overall Procedural Justice Reaction Item 1	3.48	1.15	1.76	0.94	6.69	64	0.00	1.67
Overall Procedural Justice Reaction Item 2	3.33	1.02	1.73	0.80	7.11	64	0.00	1.83
Overall Procedural Justice Reaction Item 3	3.33	1.05	1.70	0.85	6.96	64	0.00	1.74

Table 18

*Pilot Stage 4 T-Test Results for Reconsideration Opportunity*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.33	1.03	2.31	1.16	3.72	63	0.00	0.94
Job Relatedness Content Item 2	3.23	1.19	2.46	1.04	2.80	63	0.01	0.71
Job Relatedness Predict Item 1	3.43	0.63	3.14	0.94	1.44	63	0.16	0.36
Job Relatedness Predict Item 2	3.50	0.73	2.94	0.76	2.99	63	0.00	0.75
Opportunity to Perform Item 1	3.17	0.99	2.97	0.92	0.82	63	0.41	0.21
Opportunity to Perform Item 2	3.27	0.98	2.89	0.96	1.58	63	0.12	0.40
Opportunity to Perform Item 3	3.27	0.91	2.71	1.05	2.26	63	0.03	0.57
Opportunity to Perform Item 4	3.27	0.98	2.97	1.07	1.15	63	0.25	0.29
Reconsideration Opportunity Item 1	4.07	0.64	1.60	0.95	12.10	63	0.00	3.22
Reconsideration Opportunity Item 2	4.20	0.76	1.51	0.85	13.29	63	0.00	3.35
Reconsideration Opportunity Item 3	3.57	1.01	1.91	0.89	7.04	63	0.00	1.77
Reconsideration Opportunity Item 4	4.17	0.59	1.60	1.01	12.27	63	0.00	3.40
Reconsideration Opportunity Item 5	3.60	0.93	1.97	1.10	6.39	63	0.00	1.61
Consistency of Administration Item 1	4.00	0.79	3.66	1.11	1.41	63	0.16	0.37
Consistency of Administration Item 2	3.77	0.90	3.34	1.08	1.70	63	0.09	0.43
Consistency of Administration Item 3	3.53	1.01	3.26	1.07	1.07	63	0.29	0.27
Overall Procedural Justice Reaction Item 1	3.13	1.25	2.11	1.11	3.49	63	0.00	0.88
Overall Procedural Justice Reaction Item 2	2.90	1.32	2.03	1.12	2.87	63	0.01	0.75
Overall Procedural Justice Reaction Item 3	3.27	1.28	2.46	1.24	2.58	63	0.01	0.65



Table 19

*Pilot Stage 4 T-Test Results for Consistency of Administration*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	2.91	1.06	2.07	0.92	3.26	59	0.00	0.85
Job Relatedness Content Item 2	2.71	0.94	2.15	0.99	2.25	59	0.03	0.59
Job Relatedness Predict Item 1	3.38	0.82	3.00	0.78	1.85	59	0.07	0.48
Job Relatedness Predict Item 2	3.29	0.80	3.04	0.65	1.35	59	0.18	0.35
Opportunity to Perform Item 1	3.03	0.87	3.00	0.83	0.13	59	0.89	0.03
Opportunity to Perform Item 2	2.91	0.90	2.81	0.88	0.42	59	0.67	0.11
Opportunity to Perform Item 3	3.12	0.91	2.63	0.88	2.10	59	0.04	0.55
Opportunity to Perform Item 4	3.15	0.89	2.74	0.98	1.69	59	0.10	0.44
Reconsideration Opportunity Item 1	2.82	1.11	2.48	0.80	1.34	59	0.18	0.35
Reconsideration Opportunity Item 2	2.74	0.93	2.59	0.84	0.62	59	0.54	0.16
Reconsideration Opportunity Item 3	2.82	1.03	2.07	1.04	2.82	59	0.01	0.73
Reconsideration Opportunity Item 4	2.68	0.84	2.56	0.85	0.56	59	0.58	0.14
Reconsideration Opportunity Item 5	2.94	1.13	2.56	0.93	1.43	59	0.16	0.37
Consistency of Administration Item 1	4.21	0.84	1.70	0.87	11.35	59	0.00	2.95
Consistency of Administration Item 2	4.12	0.84	1.74	0.81	11.10	59	0.00	2.89
Consistency of Administration Item 3	3.82	1.11	2.52	1.37	4.11	59	0.00	1.07
Overall Procedural Justice Reaction Item 1	3.03	1.31	1.85	0.95	3.91	59	0.00	1.06
Overall Procedural Justice Reaction Item 2	2.82	1.17	1.85	0.86	3.61	59	0.00	0.97
Overall Procedural Justice Reaction Item 3	3.26	1.24	1.81	1.18	4.64	59	0.00	1.21

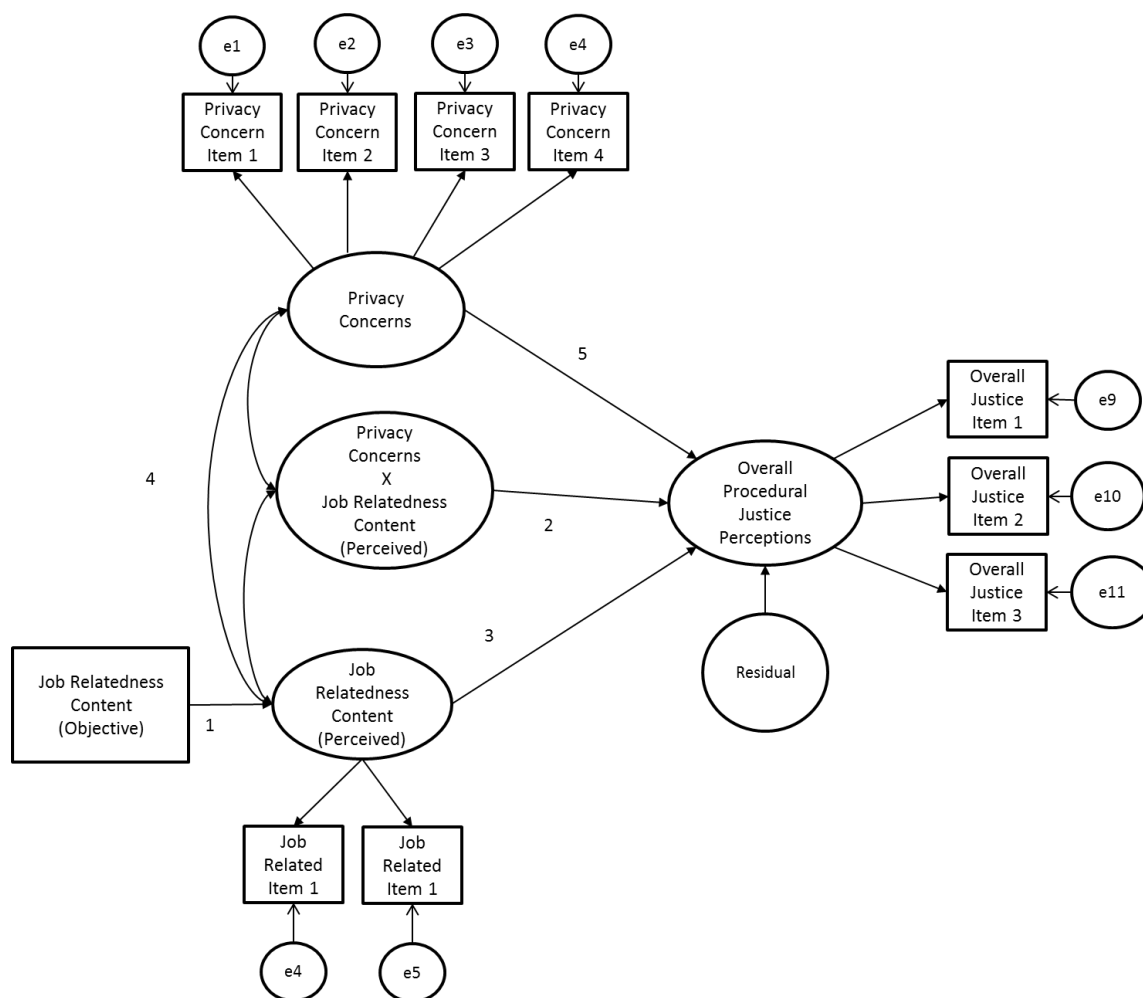
## CHAPTER IV

### METHOD: FULL STUDY

#### Main Study

**Participants.** The participants were recruited from mTurk, following the same reasoning as the sample selection for the pilot. To investigate remaining hypotheses, five SEM models containing similar paths to that in Figure 3 were tested, one for each procedural justice rule. As with the pilot, each participant was assigned to one of two conditions (high or low justice) for each procedural justice rule. To identify an appropriate sample size, these multiple models were investigated to identify the number of participants needed to test the most restrictive model. A power analysis was conducted using the Monte Carlo simulation method in Mplus outlined by Muthen and Muthen (2002). As input for this simulation, the correlation between objective justice rules and procedural justice rule perceptions as well as the correlation between objective justice rules and overall procedural justice perceptions were both estimated to be .31, and the correlation between procedural justice rule perceptions and overall procedural justice was estimated to be .41, both derived from Lueke (2004). The correlation between privacy concerns and overall procedural justice was estimated to be -.29 (Bauer et al., 2006). Finally, the interaction between privacy concerns and procedural justice rule perceptions was estimated to be conservatively .20 (Stoughton, Thompson, & Meade, 2015). To generate the sample size, a simulation was first run using 1000 participants with the estimates above entered into the proposed model. This simulation was run repeatedly, adjusting the number of participants each time until the power level for the mediating and moderating relationships, the effects that need the larger samples to be observed, reached .80. The final number of participants needed was

estimated to be 1105. The study took participants approximately 20 minutes to complete and they were compensated \$1.50 for their time.



*Figure 3.* An example of the SEM models used to test the proposed theoretical model. The models only differ in the number of SPJS subscale items. In this example, the job relatedness content subscale of the SPJS has 2 items.

**Measures.** In addition to reading the scenarios, participants completed several measures to gather information needed to test the model.

**Procedural justice.** As in pilot, procedural justice rule perceptions were measured using the SPJS (Bauer et al., 2001) and overall procedural justice perceptions were measured using the

scale developed by Truxillo and Bauer (1999). Participants received the full scale of each measure after reading each scenario.

***Demographics.*** Demographic information was also collected, including age, sex, race and social network use, using the same items as the pilot.

***Privacy concerns.*** Participants received the privacy concerns measure adapted from Dinev and Hart (2004). These items can be found in Appendix E.

***Other measures.*** A manipulation check was also included to ensure participants accurately read the scenario and understood the hypothetical selection system. Participants were asked one basic, factual question about each scenario in a multiple-choice format. If participants responded incorrectly about a scenario, this was viewed as evidence that the participants was not carefully following the instructions and that data was not included in the final analyses.

***Procedure.*** Participants were randomly assigned to conditions, to determine which vignettes the participants received. The process was the same as that in the pilot study, with each participant receiving the baseline condition and 5 randomly assigned high or low procedural justice scenarios, one for each procedural justice rule, in a random order. Following each scenario, participants received the full SJPS and the overall measure of procedural justice. After the participants viewed all of the assigned scenarios, participants were given the demographics measures and the final privacy concerns measure, as outlined in Figure 2.

## CHAPTER V

### RESULTS: FULL STUDY

For the full study, a total of 1607 participants were recruited from mTurk. After using the same data cleaning as outlined for the pilot, a total of 1318 participants remained. The average age of the participants was 37.21 ( $SD = 11.846$ ), 46.6% were male and 52.7% were female with the remaining .7% selecting transgender (.4%), other (.1%), or not disclosing (.2%). The majority of participants reported their race as white (74.4%), with the remainder reporting African American (8.4%), Asian American (6.1%), Hispanic (6.1%), two or more races (2.4%), Native American (1.0%), Other (1.0%), Pacific Islander or Native Hawaiian (.2%), or elected not to disclose (.5%). Most participants reported not currently being students (69.7%), and of those in school most were graduate students (11.4%) or seniors (6.9%), followed by juniors (3.1%), non-degree seeking students (2.9%), sophomores (2.7%), non-traditional students (2.3%) and freshmen (1.0%). Most participants reported working full-time (64.6%) or part time (18.5%) with a minority reporting they were unemployed (16.8%). Of those working, most reported working 40 or more hours a week (67.3%), with the remainder working 20-39 hours per week (26.7%) or less than 20 hours per week (6%).

To understand the participants' familiarity with social media, participants were asked to report their social media use. The majority of participants reported using social media daily (70.1%); the rest of the participants reported using social media several times a week (13.2%), once a week (4.3%), several times a month (3.8%), less than once a month (3.1%) or once a month (1.5%) with a minority reporting that they never use social media (2.1%). Participants were asked to indicate which sites they use regularly. The most common site was Facebook

(75.6%) followed by Twitter (39.2%), Instagram (35.9%), Reddit (30.7%), Pinterest (26.3%) and LinkedIn (20.4%).

Most participants reported using mTurk as a part-time supplement to their primary income (72.8%), with fewer reporting using mTurk just for fun (12.1%), as their primary source of income (10.0%) or for another reason (4.5%). Of those reporting “other”, most stated using mTurk to meet some financial goal, such as saving for retirement, or for intellectual stimulation. The majority of participants reported spending 10 hours a week or less completing mTurk HITs (59.5%), with the remainder spending 11-20 hours per week (27.9%), 21-39 hours per week (7.7%), and a minority spending 40 or more hours per week on mTurk (4.9%).

### **Assumption Testing**

The basic assumptions of regression were tested for each justice rule model, to understand any additional cleaning or transformations that would be needed before proceeding with the model testing. Univariate outliers were investigated by creating boxplots for each of the items in each of the scales to be tested in the model, as well as the overall measurement scale scores. For job relatedness content, reconsideration opportunity, and consistency of administration, no cases were greater than 3 interquartile ranges away from quartiles 1 or 3, suggesting that there are no extreme univariate outliers for these models. The opportunity to perform condition had 3 cases with extreme scores for the mean privacy scale score, which was a very small number relative to the overall sample. Since these outliers were only found with the mean scale score and a CFA for the measure was going to be conducted, these cases were not removed from the sample.

The linearity of the relationship between the predictors and the outcomes in each model was assessed using Lowess lines fit to the residuals of each model and the predictor's values. For

each of relationship, the Lowess line was relatively flat, hovering around zero. This suggests that the correct form was specified and the predictors were linearly related to the outcome variables. Homoscedasticity was assessed by investigating the same scatterplots generated to assess linearity to identify unusual patterns, such as cone or football shaped distributions, which could indicate inconsistent variance. For each model, none of the scatterplots were found to show evidence of violating the assumption of homoscedasticity. The independence of the residuals for each relationship were assessed using autocorrelation. For each test, the null hypothesis was retained, which suggests that residuals are independent across individuals and therefore clustering is not an issue. Distribution of the residuals was assessed to determine normality using QQ plots with the residuals from each of the models. For all of the models, the residuals fell along the trendline of the plot, which suggests they are normally distributed.

A number of tests for multivariate outliers were also undertaken to investigate those assumptions, following the advice of Cohen, Cohen, West, and Aiken (2003). The leverage statistic and Mahalanobis distance were both investigated to determine if leverage is present for any of the models. The cutoff value for leverage was determined to be .0054 for the models, using the guidelines outlined by Cohen, et al. (2003), for large samples. Many points exceeded this value, suggesting that leverage may be an issue. For Mahalanobis, a cutoff value of 16.2662 was calculated by finding the critical chi-square value for the model using an alpha of .001 (Cohen et al., 2003). The reconsideration opportunity model had three values that exceeded the cutoff value and the other models had no values exceed the cutoff value. Bootstrapping can be utilized to ameliorate the impact of leverage, and was utilized for the structure equation model analysis, rather than transforming the values (Cohen et al., 2003). Discrepancy was investigated by assessing the externally studentized residuals for each of the models and comparing them to a

cutoff value, calculated to be 4.9394 following the guidance of Cohen, et al. (2003). Across the models, none of the values exceeded the cutoff value, suggesting that discrepancy is not an issue for any of the models. Influence was investigated using DFFITS, Cook's D, and DFBETAS and cutoff values for each statistic were calculated according to the advice of Cohen, et al. (2003). For each full model, a cutoff value of .0036 was calculated for DFFITS. Each model had multiple cases exceed the cutoff, which suggests influence may be an issue for the models. Cook's D values were evaluated against a cutoff value of .8397 for each of the models. For each model, no cases exceeded the cutoff value. Standardized DFBETAS values were assessed against a cutoff value of .0602 for each model. For each model, multiple values exceeded the cutoff value, again suggesting that influence may be an issue for each model. As with the leverage violations, bootstrapping the SEM model was chosen to address the violation, rather than transforming the variables.

Multicollinearity was assessed using VIF, Tolerance, and Eigenvalues for each of the models. None of the models had VIF values that exceeded the cutoff value of 10, as recommended by Cohen et al. (2003). None of the models had Tolerance values greater than the cutoff value of .1, the cutoff advised in Cohen et al (2003). Eigenvalues were assessed for each model by taking the square root of the largest Eigenvalue divided by the smallest Eigenvalue, per Cohen et al. (2003). For each model, this value was less than the cutoff value of 30. Taken together, each of these tests suggest that multicollinearity is not a concern for any of the models.

### **Measurement Model Testing**

Before testing the hypotheses, the measurement model for each scale was investigated. Descriptive statistics and reliabilities were assessed for each item and each scale. The descriptive statistics, correlations, and reliabilities for each measure within each condition can be found in



Tables 20-23. Three of the four subscales of the SPJS, the full overall procedural justice reactions scale, and the need for privacy scale were each assessed with a CFA to understand the structure of the measurement model and avoid misfit for the full models. A CFA could not be conducted for the job relatedness content scale because it only has two items.

Table 20

*Descriptive Statistics, Reliabilities, and Correlations for the Job Relatedness Content Conditions*

Measure	<i>n</i>	Mean	<i>SD</i>	1	2	3	4	5	6	7	8
1. Age	1217	37.42	11.74	-							
2. Level	1259	0.50	0.50	0.04	-						
3. SPJS Job Relatedness Content	1259	2.78	1.31	-0.07*	0.61**	0.93					
4. SPJS Opportunity to Perform	1259	2.97	1.09	-0.01	0.36**	0.65**	0.95				
5. SPJS Reconsideration Opportunity	1259	2.66	0.95	-0.14**	0.31**	0.64**	0.67**	0.92			
6. SPJS Consistency of Administration	1259	3.39	0.94	0.09**	0.22**	0.45**	0.47**	0.45**	0.85		
7. Overall Procedural Justice Reactions	1259	2.58	1.22	-0.11**	0.48**	0.81**	0.67**	0.74**	0.46**	0.95	
8. Privacy Concerns	1219	4.00	0.86	0.13**	0.00	-0.11**	-0.10**	-0.16**	-0.09**	-0.18**	0.92

*Note.* For Justice level, 1=High Justice, 0=Low Justice. Reliabilities are listed on the diagonal, where applicable. \* $p < .05$ , \*\* $p < .01$ .

Table 21

*Descriptive Statistics, Reliabilities, and Correlations for the Opportunity to Perform Conditions*

Measure	<i>n</i>	Mean	<i>SD</i>	1	2	3	4	5	6	7	8
1. Age	1189	37.33	11.76	-							
2. Level	1232	0.50	0.50	0.02	-						
3. SPJS Job Relatedness Content	1232	2.76	1.39	-0.02	0.68**	0.94					
4. SPJS Opportunity to Perform	1232	2.86	1.24	0.01	0.60**	0.83**	0.96				
5. SPJS Reconsideration Opportunity	1232	2.64	0.98	-0.13**	0.40**	0.68**	0.69**	0.92			
6. SPJS Consistency of Administration	1232	3.39	0.96	0.06*	0.26**	0.45**	0.42**	0.42**	0.85		
7. Overall Procedural Justice Reactions	1232	2.59	1.28	-0.07	0.54**	0.83**	0.78**	0.74**	0.48**	0.95	
8. Privacy Concerns	1191	4.01	0.86	0.12**	-0.20	-0.09**	-0.08**	-0.18**	-0.09**	-0.17**	0.92

*Note.* For Justice level, 1=High Justice, 0=Low Justice. Reliabilities are listed on the diagonal, where applicable. \* $p < .05$ , \*\* $p < .01$ .

Table 22

*Descriptive Statistics, Reliabilities, and Correlations for the Reconsideration Opportunity Conditions*

Measure	<i>n</i>	Mean	<i>SD</i>	1	2	3	4	5	6	7	8
1. Age	1242	37.34	11.96	-							
2. Level	1292	0.51	0.50	0.03	-						
3. SPJS Job Relatedness Content	1292	2.66	1.12	-0.15**	0.28**	0.89					
4. SPJS Opportunity to Perform	1292	2.96	1.07	-0.05	0.28**	0.69**	0.95				
5. SPJS Reconsideration Opportunity	1292	2.88	1.38	-0.04	0.77**	0.56**	0.53**	0.96			
6. SPJS Consistency of Administration	1292	3.45	0.93	0.03	0.20**	0.44**	0.44**	0.38**	0.86		
7. Overall Procedural Justice Reactions	1292	2.56	1.19	-0.13**	0.44**	0.75**	0.66**	0.73**	0.44**	0.95	
8. Privacy Concerns	1244	4.02	0.84	0.13**	0.00	-0.15**	-0.10**	-0.07*	-0.08**	-0.20**	0.92

*Note.* For Justice level, 1=High Justice, 0=Low Justice. Reliabilities are listed on the diagonal, where applicable. \* $p < .05$ , \*\* $p < .01$ .

Table 23

*Descriptive Statistics, Reliabilities, and Correlations for the Reconsideration Opportunity Conditions*

Measure	<i>n</i>	Mean	<i>SD</i>	1	2	3	4	5	6	7	8
1. Age	1205	37.27	11.77	-							
2. Level	1247	0.50	0.50	0.04	-						
3. SPJS Job Relatedness Content	1247	2.52	1.11	-0.13**	0.26**	0.90					
4. SPJS Opportunity to Perform	1247	2.86	1.04	-0.04	0.14**	0.67**	0.95				
5. SPJS Reconsideration Opportunity	1247	2.63	0.94	-0.19**	0.22**	0.72**	0.66**	0.92			
6. SPJS Consistency of Administration	1247	3.09	1.29	0.04	0.68**	0.48**	0.32**	0.43**	0.92		
7. Overall Procedural Justice Reactions	1247	2.49	1.17	-0.12**	0.38**	0.76**	0.59**	0.71**	0.61**	0.94	
8. Privacy Concerns	1207	4.00	0.86	0.14**	-0.01	-0.17**	-0.14**	-0.16**	-0.09**	-0.22**	0.92

*Note.* For Justice level, 1=High Justice, 0=Low Justice. Reliabilities are listed on the diagonal, where applicable. \*\* $p < .01$ .

Each model's fit statistics were assessed in order to identify if the data support the model, and the cutoff values used for these tests are outlined below. A model chi-square was used to investigate model fit, where the closer chi-square is to zero, the better the model fit (Kline, 2011). For p-values greater than .05, the model was determined to not vary significantly from the data. However, chi-square has a number of vulnerabilities, including being swayed by sample size which can cause it to be misleading (Cortina, 2007). Additionally, CFI, RMSEA and SRMR were used to confirm model fit. For both RMSEA and SRMR, the closer to 0, the better the model fit (Kline, 2011). RMSEA values greater than .10 indicate that model fit may be a problem. CFI investigates the difference between the hypothesized model and the actual data. CFI is less affected by sample size than RMSEA (Kline, 2011). For CFI, values range from 0 to 1 and a value closer to 1 indicates better model fit, with a value of .95 or greater indicating good fit.

The results for the CFA for each scale can be seen in Table 20. Chi-square, RMSEA, SRMR, and CFI were all used to determine measurement model fit. For the SPJS subscales, reconsideration opportunity and consistency of administration both had Chi-square results that rejected the null, a preliminary indication of poor model fit. However, Chi-square can be susceptible to large samples, resulting in significant test values when model fit is not actually poor. The opportunity to perform and consistency of administration also each had acceptable values for RMSEA and SRMR, all of which were nearly zero, and for CFI indicating good model fit. The reconsideration opportunity subscale had high values for RMSEA, exceeding .2, and an SRMR value exceeding .02, which suggests poor model fit. The CFI value for the opportunity to perform and consistency of administration subscales were each 1.00, suggesting good model fit. The CFI value for the reconsideration opportunity subscale was .97, but Kenny (2014) suggested that when RMSEA values exceed .158 misfit is a problem, requiring both SRMR and CFI to be

interpreted with caution. As a result, I concluded that the opportunity to perform and consistency of administration subscales each had measurement models with good fit, but the reconsideration opportunity subscale required additional investigation.

Table 24

*Confirmatory Factor Analysis results for the Measures*

	$\chi^2$	<i>df</i>	<i>RMSEA</i>	<i>CFI</i>	<i>SRMR</i>
Job Relatedness Content					
Overall Procedural Justice	0.00***	0	0.00	1.00	0.00
Opportunity to Perform					
Overall Procedural Justice	0.00***	0	0.00	1.00	0.00
SPJS Subscale	0.80	2	0.00	1.00	0.00
Reconsideration Opportunity					
Overall Procedural Justice	0.00***	0	0.00	1.00	0.00
SPJS Subscale (All Items)	264.70***	5	0.21	0.97	0.03
SPJS Subscale (Without Item 3)	21.41	2	0.09	1.00	0.01
Consistency of Administration					
Overall Procedural Justice	0.00***	0	0.00	1.00	0.00
SPJS Subscale	0.00***	0	0.00	1.00	0.00
Privacy Concerns Scale	4.66	2	0.03	1.00	0.00

*Note.* \*\*\* $p < .001$ .



Modification indices for the reconsideration opportunity scale were investigated to identify problematic items. The results suggested that item 3 was the source of the misfit. Because this item inquired about satisfaction with the review process, while the scenario simply indicated that the applicant could review the information collected, it was decided that this was a likely cause of the item's misfit in the measurement model. The item was removed and the results of the CFA were much improved, with RMSEA, SRMR, and CFI all falling within the recommended values. For all model testing, this subscale was used without item 3.

The overall procedural justice scale's measurement model was tested within each justice rule, as it was administered following each scenario. The results for these CFAs can be found in Table 24. For each test of the measurement model, the CFA suggested good model with chi-square values, RMSEA, and SRMR all at or near zero, while CFI values were consistently 1.00. The privacy needs scale was administered just once for each participant, and as a result just one CFA was conducted for this scale. The results of this analysis can be found in Table 24. The non-significant Chi-square value, RMSEA below the recommended value of .158 (Kenny, 2014), SRMR near zero, and CFI approaching 1 all indicate good measurement model fit for this scale. Aside from the reconsideration opportunity scale, which was modified as previously discussed, all other measurement models were utilized in their original form for the full model tests. Path models for the CFAs can be found in Figures 4-12.

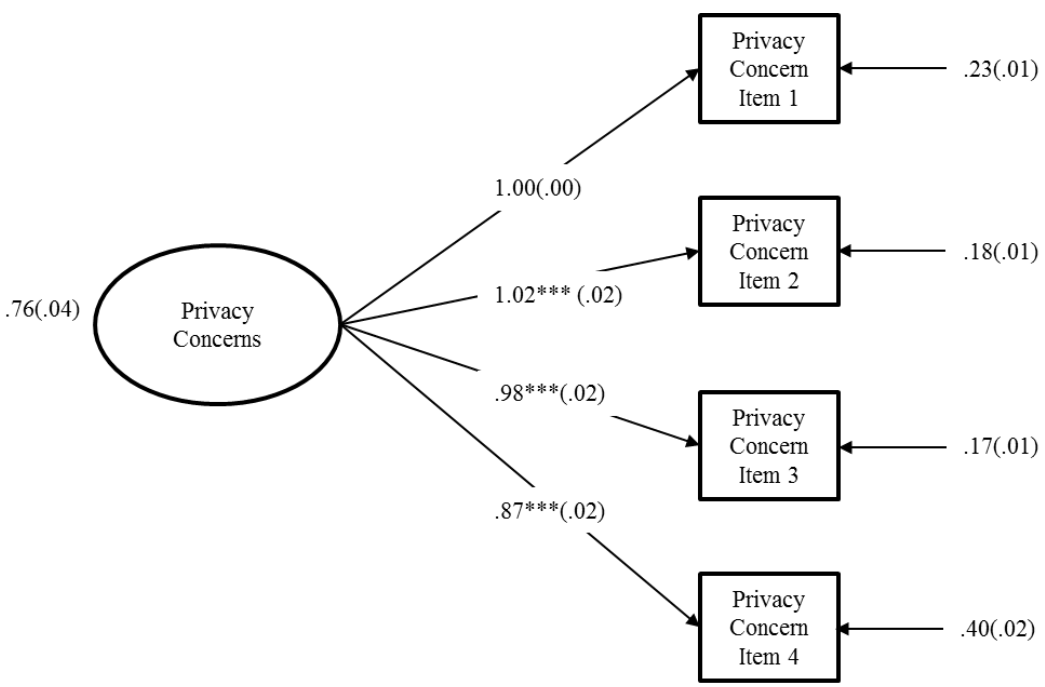


Figure 4. Confirmatory factor analysis results for the privacy concerns scale. Unstandardized parameter estimates are reported and standard errors are included in the parentheses.

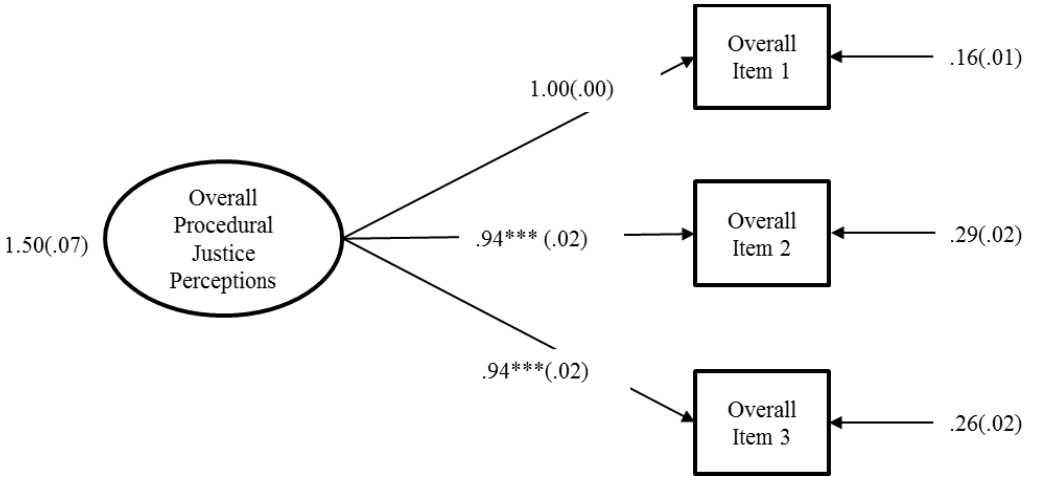
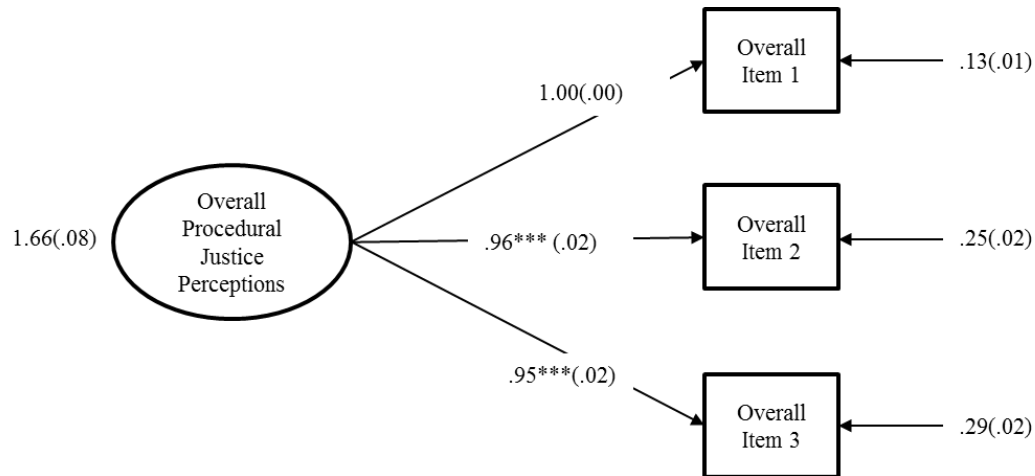
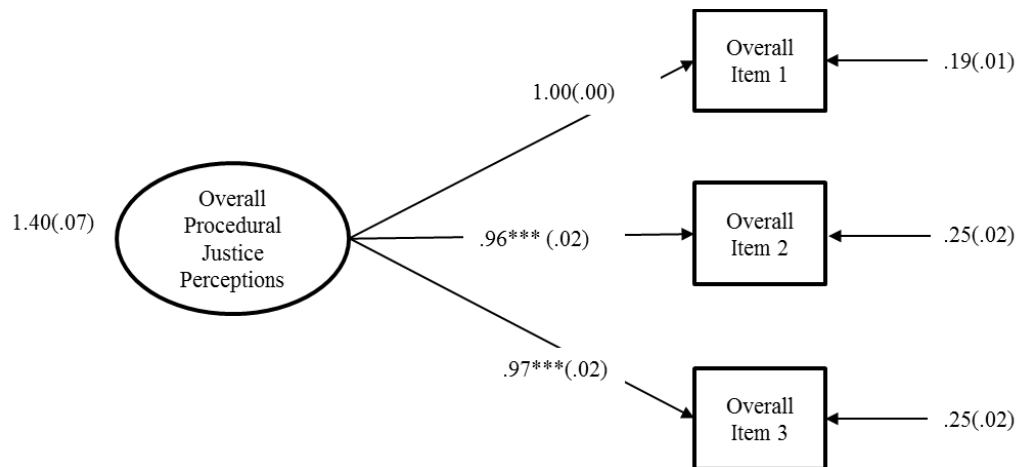


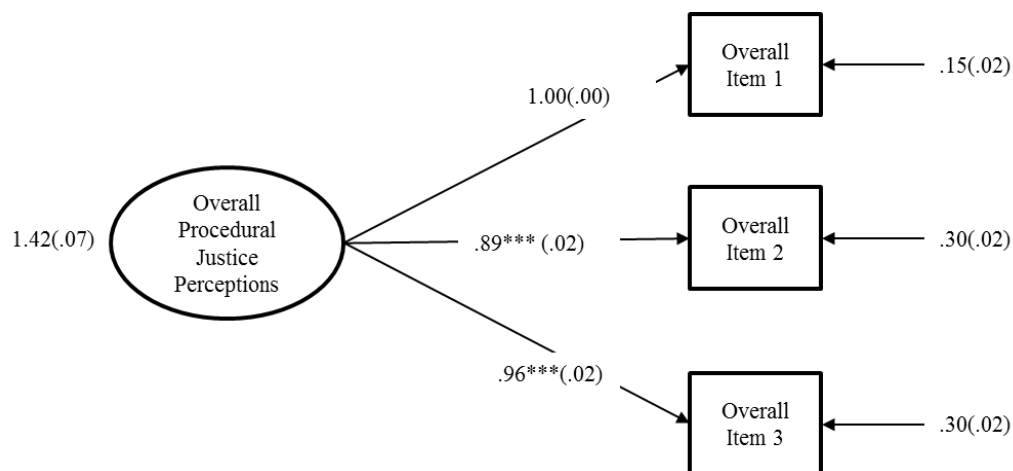
Figure 5. Confirmatory factor analysis results for the overall procedural justice scale under the job relatedness content justice rule conditions. Unstandardized parameter estimates are reported and standard errors are included in the parentheses.



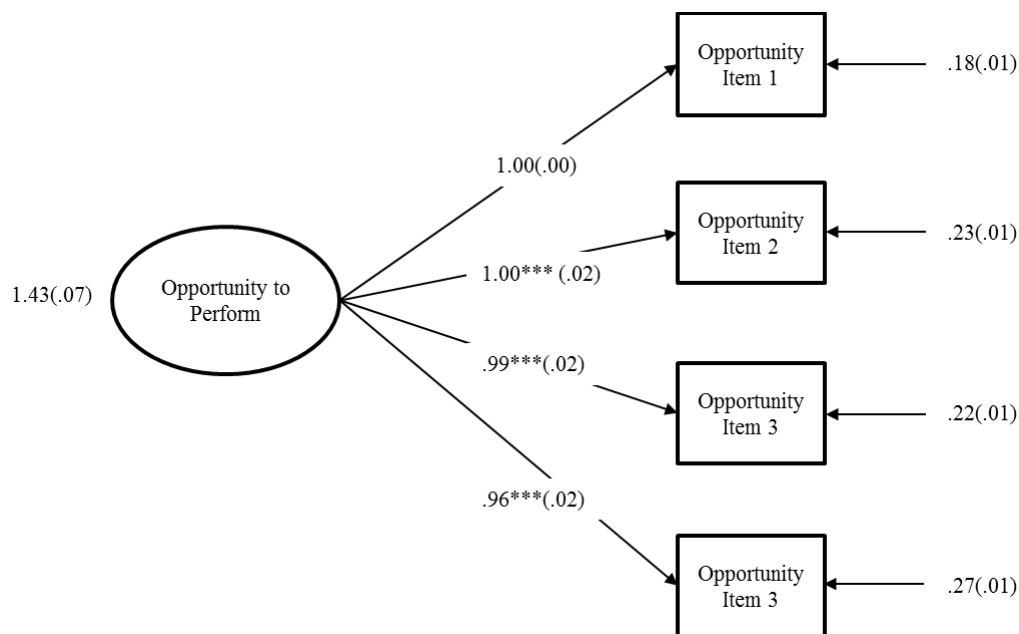
*Figure 6.* Confirmatory factor analysis results for the overall procedural justice scale under the opportunity to perform justice rule conditions. Unstandardized parameter estimates are reported and standard errors are included in the parentheses.



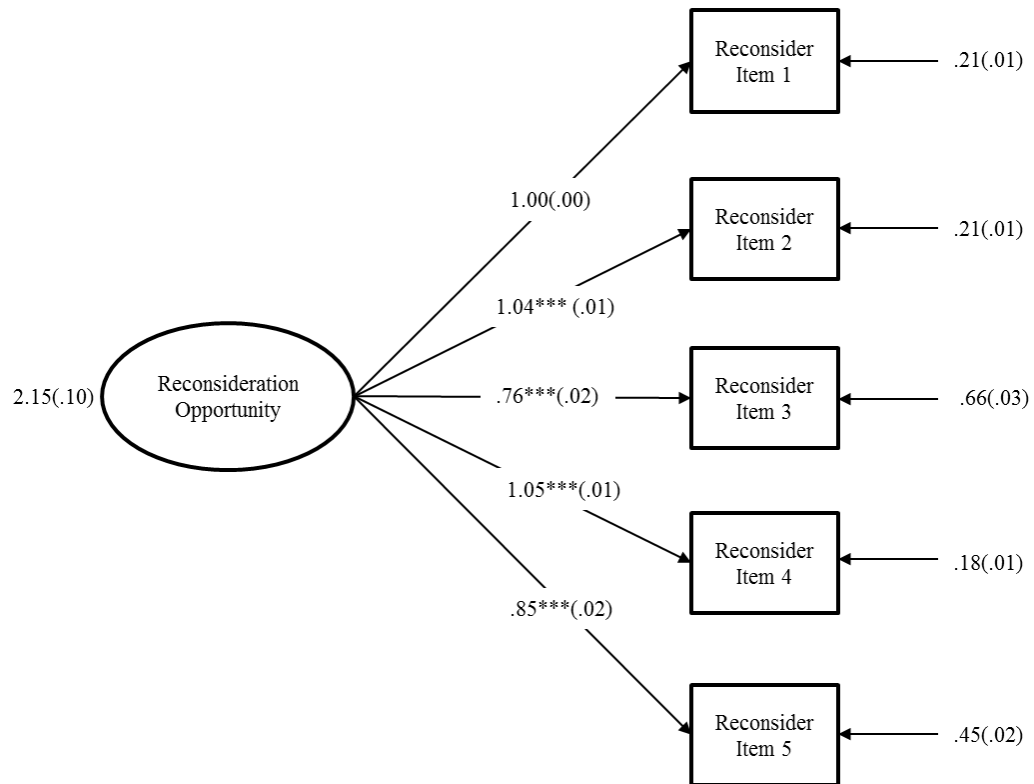
*Figure 7.* Confirmatory factor analysis results for the overall procedural justice scale under the reconsideration opportunity justice rule conditions. Unstandardized parameter estimates are reported and standard errors are included in the parentheses.



*Figure 8.* Confirmatory factor analysis results for the overall procedural justice scale under the consistency of administration justice rule conditions. Unstandardized parameter estimates are reported and standard errors are included in the parentheses.



*Figure 9.* Confirmatory Factor analysis results for the SPJS opportunity to perform subscale. Unstandardized parameter estimates are reported and standard errors are included in the parentheses.



*Figure 10.* Confirmatory Factor analysis results for the SPJS reconsideration opportunity subscale. Unstandardized parameter estimates are reported and standard errors are included in the parentheses.

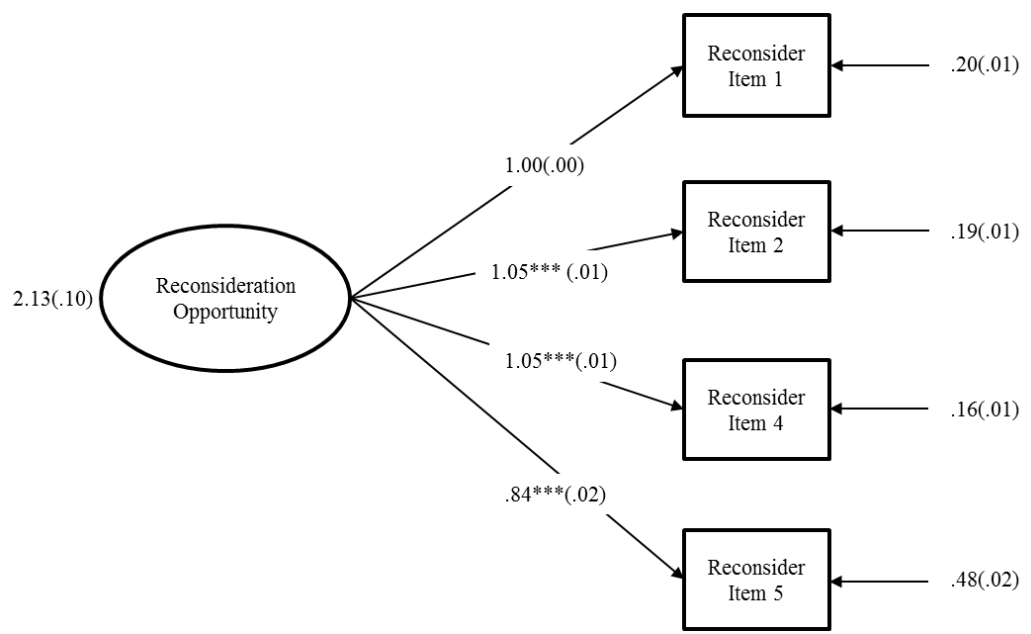


Figure 11. Confirmatory Factor analysis results for the SPJS reconsideration opportunity subscale after item 3 was removed. Unstandardized parameter estimates are reported and standard errors are included in the parentheses.

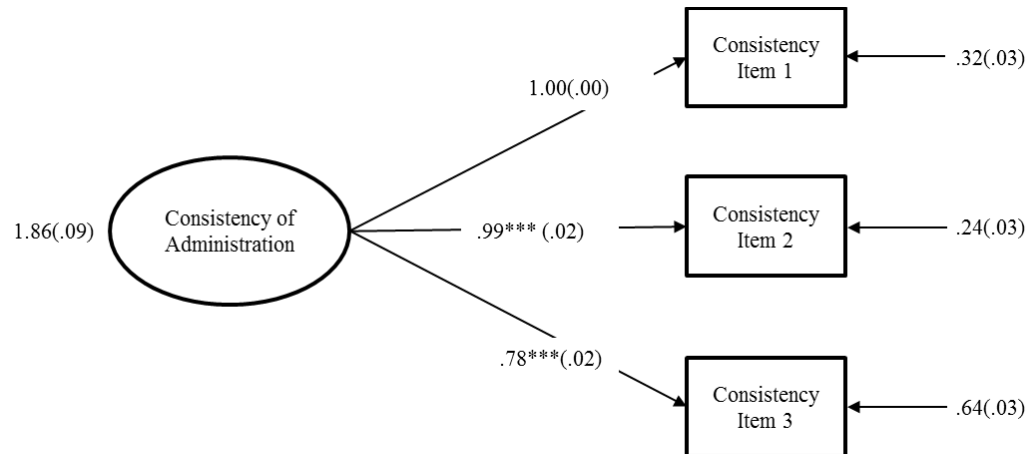


Figure 12. Confirmatory Factor analysis results for the SPJS consistency of administration subscale. Unstandardized parameter estimates are reported and standard errors are included in the parentheses.

**Hypothesis Testing**

Once the assumptions were tested and the measurement models were investigated and corrected, hypothesis testing commenced. Hypotheses were tested with five sets of structural equation models, one for each procedural justice rule, using Mplus version 7 (Muthén & Muthén, 2012). The first model, which contained the hypothesized measurement model but a saturated path model, was for diagnostic purposes only to isolate model fit issues related to the measurement model. Specifically, if model misfit was observed in that model, it implied cross-loadings between items across scales that would need to be attended to before further modeling. The second model constrained path coefficients in the first model to zero where not hypothesized. Thus, the second model served as the basis for fit estimation of the hypothesized model. The third model added the hypothesized latent interaction term to the second model. Model fit could not be calculated here, because the inclusion of latent interaction terms prevents traditional model fit statistics from being calculated in Mplus; however, it is the only way to get path coefficient estimates for the interaction term. In summary, the first model was used as diagnostic of cross-loadings in the measurement model. The second model was used for model fit estimation and as the final model for path estimates in cases where the interaction term was not statistically significant. Finally, the third model was used as the final model for path estimates in cases where the interaction term was in fact statistically significant.

**Hypothesis 1.** Hypothesis 1 was tested again in the full study using t-tests to examine the relationships between each procedural justice rule condition and the subscales in the SPJS. The results from these t-tests can be found in Tables 25-28. As seen in the results, participants could distinguish between high and low justice conditions in for each procedural justice rule with each t-test being significant. Further, d-statistics were calculated to investigate if participants could distinguish the given justice rule from the others using the SPJS subscales, also seen in

Tables 25-28. Results suggested that participants could distinguish the rules from one another. Overall, this supported Hypothesis 1, procedural justice rule manipulations were related to procedural justice rule perceptions for each condition.

A control condition was compared to the high and low justice conditions to understand how a lack of information about the procedural justice rules would be interpreted. For these comparisons, paired samples t-tests were conducted for each procedural justice rule comparing each justice condition with the control scenario both for overall procedural justice ratings and the associated SPJS subscale. The results of these t-tests can be found in Tables 29-30, which differed both by condition and measure. For opportunity to perform, the high justice condition was not significantly different from the control condition for overall procedural justice reactions. All other comparisons for overall procedural justice reactions were statistically significant. For the associated SPJS subscales, opportunity to perform and consistency of administration's high justice conditions were not significantly different from the control condition. Across the measures and the justice rules, control conditions were rated more similarly to high justice conditions than low justice conditions.



Table 25

*T-Test Results for the Effect of Job Relatedness Content Justice Rule Level on Procedural Justice Rule Perceptions and Overall*

*Justice Perceptions*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.56	1.14	1.95	1.01	25.69	1174	<.01	1.50
Job Relatedness Content Item 2	3.69	1.07	1.86	0.99	30.34	1174	0.00	1.77
Opportunity to Perform Item 1	3.35	1.09	2.54	1.10	12.60	1174	0.00	0.74
Opportunity to Perform Item 2	3.40	1.08	2.55	1.07	13.57	1174	0.00	0.79
Opportunity to Perform Item 3	3.31	1.08	2.49	1.08	13.09	1174	0.00	0.76
Opportunity to Perform Item 4	3.35	1.08	2.59	1.11	11.92	1174	0.00	0.70
Reconsideration Opportunity Item 1	2.84	0.98	2.37	0.96	8.33	1174	0.00	0.49
Reconsideration Opportunity Item 2	2.85	1.00	2.44	0.95	7.12	1174	0.00	0.42
Reconsideration Opportunity Item 4	2.90	1.04	2.42	0.99	8.21	1174	0.00	0.48
Reconsideration Opportunity Item 5	3.04	1.07	2.29	0.99	12.39	1174	0.00	0.72
Consistency of Administration Item 1	3.70	0.95	3.21	1.17	7.86	1174	0.00	0.46
Consistency of Administration Item 2	3.54	0.97	3.10	1.12	7.17	1174	0.00	0.42
Consistency of Administration Item 3	3.51	0.98	3.17	1.11	5.65	1174	0.00	0.33
Overall Procedural Justice Reaction Item 1	3.19	1.21	1.94	1.04	18.95	1174	0.00	1.12
Overall Procedural Justice Reaction Item 2	3.04	1.24	1.84	1.00	18.37	1174	0.00	1.07
Overall Procedural Justice Reaction Item 3	3.28	1.16	2.03	1.04	19.45	1174	0.00	1.14

*Note.* For these conditions,  $n = 1259$ .

Table 26

*T-Test Results for the Effect of Opportunity to Perform Justice Rule Level on Procedural Justice Rule Perceptions and Overall Justice Perceptions*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	3.72	1.08	1.73	0.97	32.56	1128	0.00	1.94
Job Relatedness Content Item 2	3.82	1.06	1.64	0.91	37.01	1128	0.00	2.20
Opportunity to Perform Item 1	3.63	1.05	2.02	1.02	26.21	1128	0.00	1.56
Opportunity to Perform Item 2	3.70	1.01	2.01	1.03	27.90	1128	0.00	1.66
Opportunity to Perform Item 3	3.60	1.05	1.99	1.01	26.17	1128	0.00	1.56
Opportunity to Perform Item 4	3.59	1.05	2.07	1.05	24.26	1128	0.00	1.44
Reconsideration Opportunity Item 1	2.92	1.01	2.27	0.96	11.11	1128	0.00	0.66
Reconsideration Opportunity Item 2	3.00	1.02	2.35	0.98	11.03	1128	0.00	0.66
Reconsideration Opportunity Item 4	2.96	0.99	2.31	0.97	11.19	1128	0.00	0.67
Reconsideration Opportunity Item 5	3.09	1.08	2.08	1.02	16.16	1128	0.00	0.96
Consistency of Administration Item 1	3.76	0.94	3.20	1.16	8.96	1128	0.00	0.53
Consistency of Administration Item 2	3.62	1.01	3.08	1.15	8.33	1128	0.00	0.50
Consistency of Administration Item 3	3.59	0.99	3.07	1.15	8.25	1128	0.00	0.49
Overall Procedural Justice Reaction Item 1	3.34	1.18	1.77	0.99	24.24	1128	0.00	1.44
Overall Procedural Justice Reaction Item 2	3.24	1.20	1.70	0.96	23.80	1128	0.00	1.45
Overall Procedural Justice Reaction Item 3	3.38	1.17	1.90	1.08	22.11	1128	0.00	1.32

*Note.* For these conditions,  $n = 1232$ .

Table 27

*T-Test Results for the Effect of Reconsideration Opportunity Justice Rule Level on Procedural Justice Rule Perceptions and Overall*

*Justice Perceptions*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	2.98	1.16	2.19	1.02	12.40	1172	0.00	0.72
Job Relatedness Content Item 2	2.95	1.14	2.29	1.04	10.42	1172	0.00	0.61
Opportunity to Perform Item 1	3.27	1.08	2.63	1.11	10.07	1172	0.00	0.59
Opportunity to Perform Item 2	3.24	1.09	2.61	1.06	10.16	1172	0.00	0.59
Opportunity to Perform Item 3	3.27	1.07	2.55	1.08	11.44	1172	0.00	0.67
Opportunity to Perform Item 4	3.29	1.10	2.58	1.11	11.09	1172	0.00	0.65
Reconsideration Opportunity Item 1	4.15	0.76	1.57	0.89	53.44	1172	0.00	3.17
Reconsideration Opportunity Item 2	4.27	0.76	1.55	0.89	56.64	1172	0.00	3.31
Reconsideration Opportunity Item 4	4.28	0.74	1.58	0.93	55.21	1172	0.00	3.32
Reconsideration Opportunity Item 5	3.79	0.96	1.76	1.00	35.69	1172	0.00	2.08
Consistency of Administration Item 1	3.74	0.97	3.30	1.09	7.43	1172	0.00	0.44
Consistency of Administration Item 2	3.60	0.98	3.19	1.08	6.93	1172	0.00	0.40
Consistency of Administration Item 3	3.56	0.99	3.22	1.12	5.52	1172	0.00	0.32
Overall Procedural Justice Reaction Item 1	3.13	1.20	1.94	1.01	18.29	1172	0.00	1.07
Overall Procedural Justice Reaction Item 2	2.96	1.22	1.83	0.97	17.45	1172	0.00	1.04
Overall Procedural Justice Reaction Item 3	3.21	1.16	2.02	1.02	18.60	1172	0.00	1.09

*Note.* For these conditions,  $n = 1292$ .

Table 28

*T-Test Results for the Effect of Consistency of Administration Justice Rule Level on Procedural Justice Rule Perceptions and Overall Justice Perceptions*

	Group				<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	High Justice		Low Justice					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Job Relatedness Content Item 1	2.80	1.14	2.18	1.12	9.37	1139	0.00	0.56
Job Relatedness Content Item 2	2.79	1.10	2.13	1.08	10.20	1139	0.00	0.60
Opportunity to Perform Item 1	3.01	1.11	2.68	1.12	5.00	1139	0.00	0.30
Opportunity to Perform Item 2	3.01	1.11	2.68	1.10	4.96	1139	0.00	0.29
Opportunity to Perform Item 3	2.94	1.09	2.63	1.14	4.68	1139	0.00	0.28
Opportunity to Perform Item 4	3.04	1.10	2.71	1.10	5.01	1139	0.00	0.30
Reconsideration Opportunity Item 1	2.80	1.02	2.40	0.99	6.65	1139	0.00	0.39
Reconsideration Opportunity Item 2	2.83	1.00	2.46	1.00	6.12	1139	0.00	0.36
Reconsideration Opportunity Item 4	2.84	1.01	2.47	1.03	6.09	1139	0.00	0.36
Reconsideration Opportunity Item 5	2.89	1.09	2.31	1.03	9.19	1139	0.00	0.54
Consistency of Administration Item 1	4.18	0.83	2.09	1.22	33.75	1139	0.00	2.00
Consistency of Administration Item 2	4.06	0.90	2.04	1.13	33.34	1139	0.00	1.98
Consistency of Administration Item 3	3.80	1.02	2.23	1.16	24.32	1139	0.00	1.44
Overall Procedural Justice Reaction Item 1	2.96	1.22	1.96	1.08	14.80	1139	0.00	0.88
Overall Procedural Justice Reaction Item 2	2.73	1.19	1.97	1.08	11.36	1139	0.00	0.68
Overall Procedural Justice Reaction Item 3	3.12	1.22	1.98	1.04	16.99	1139	0.00	1.01

*Note.* For these conditions,  $n = 1247$ .

Table 29

*Paired Samples T-Test Results for the Difference Between Justice Conditions and the Control**Condition for Overall Procedural Justice Perceptions*

	Difference Statistics					
	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
Job Relatedness Content High Justice	0.12	1.19	2.51	617	0.01	0.13
Job Relatedness Content Low Justice	1.30	1.13	29.30	647	0.00	1.44
Opportunity to Perform High Justice	-0.07	1.14	-1.50	625	0.14	0.08
Opportunity to Perform Low Justice	1.44	1.16	30.96	624	0.00	1.53
Reconsideration Opportunity High Justice	0.21	1.17	4.40	613	0.00	0.24
Reconsideration Opportunity Low Justice	1.32	1.12	29.44	623	0.00	1.48
Consistency of Administration High Justice	0.28	1.12	6.23	607	0.00	0.35
Consistency of Administration Low Justice	1.35	1.15	29.30	624	0.00	1.46

Table 30

*Paired Samples T-Test Results for the Difference Between Justice Conditions and the Control**Condition for Associated SPJS Subscales*

	Difference Statistics					
	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
Job Relatedness Content High Justice	0.48	1.19	10.76	696	0.00	0.47
Job Relatedness Content Low Justice	2.16	1.27	45.48	720	0.00	1.78
Opportunity to Perform High Justice	0.06	1.02	1.61	695	0.11	0.08
Opportunity to Perform Low Justice	1.81	1.19	40.38	703	0.00	1.70
Reconsideration Opportunity High Justice	-0.92	1.11	-21.85	692	0.00	0.86
Reconsideration Opportunity Low Justice	1.52	1.03	38.65	688	0.00	1.85
Consistency of Administration High Justice	-0.02	0.84	-0.48	673	0.63	0.02
Consistency of Administration Low Justice	1.91	1.30	38.85	704	0.00	1.43

### **Testing saturated path models.**

Saturated path models were tested before testing the specified hypothesized to identify preliminary model fit issues, as suggested by Kenny (2014). This step was completed for diagnostic purposes: if the saturated model does not fit, the hypothesized model is unlikely to fit and adjustments may be needed. These saturated models were created by specifying a complete measurement model for each latent variable and allowing all latent variables to correlate with each other. One of these models was specified for each procedural justice rule, which included the associated SPJS subscale, the overall procedural justice reactions scale, the privacy concerns scale, and a dummy variable indicating if the justice condition was high or low justice. The results for the saturated items can be found in Table 31. Each saturated model was assessed using fit statistics. The same fit statistics and cutoff values were used to evaluate the models as used in the CFA. In each model, the Chi-square value was significant, which is an indicator of poor fit but can be swayed by large samples sizes (Kenny, 2014), as with this study. As a result, the remaining model fit statistics were investigated to identify if model fit was in fact problematic. For each model, the RMSEA, CFI, and SRMR values fell within the recommended cutoff values. In sum, this suggests that model fit was acceptable for the saturated models and the Chi-square value was skewed because of the large sample size.

Table 31

*Model Fit Statistics for Saturated Models By Procedural Justice Rule*

	$\chi^2$	<i>df</i>	<i>RMSEA</i>	<i>CFI</i>	<i>SRMR</i>
Job Relatedness Content	84.51***	30	0.04	1.00	0.01
Opportunity to Perform	67.48*	49	0.02	1.00	0.01
Reconsideration Opportunity	287.01***	49	0.07	0.99	0.03
Consistency of Administration	106.30***	39	0.04	0.99	0.02

*Note.* \* $p < .05$ , \*\*\* $p < .001$ .

**Investigating model fit for path models excluding the interaction.** Full models excluding the interaction between privacy concerns and overall procedural justice reactions, like those depicted in Figure 1, were tested after the path-saturated model results were found to be satisfactory. Models excluding the latent interaction term were tested first to identify the increase in variance explained once the interaction variable was added, as recommended by Kenny (2014). One model per procedural justice rule was tested, with the hypothesized paths specified. The fit statistics of these models can be found in Table 32. The  $R^2$ -values for the endogenous latent variables can be found in Table 33. The unstandardized path coefficients and standard errors can be found in Table 34. The standardized path coefficients can be found in Figures 13-16.

Each model's fit indices were measured against the same criteria as the previous SEM analysis, again using Mplus. As with the saturated models, the Chi-square values were all significant, which again could be an indication of poor model fit or could be due to the large sample size. However, all of the justice rule models met the criteria for RMSEA, SRMR, and CFI, which suggests that model fit for these models is good.



Table 32

*Model Fit Statistics for the Hypothesized Models for Each Justice Rule, Excluding the Interaction Between Justice Rule Perceptions and Privacy Concerns*

	$\chi^2$	<i>df</i>	<i>RMSEA</i>	<i>CFI</i>	<i>SRMR</i>
Job Relatedness Content	103.50***	38	0.04	0.99	0.05
Opportunity to Perform	72.18***	57	0.02	1.00	0.03
Reconsideration Opportunity	291.65***	57	0.06	0.99	0.03
Consistency of Administration	126.81***	47	0.04	0.99	0.04

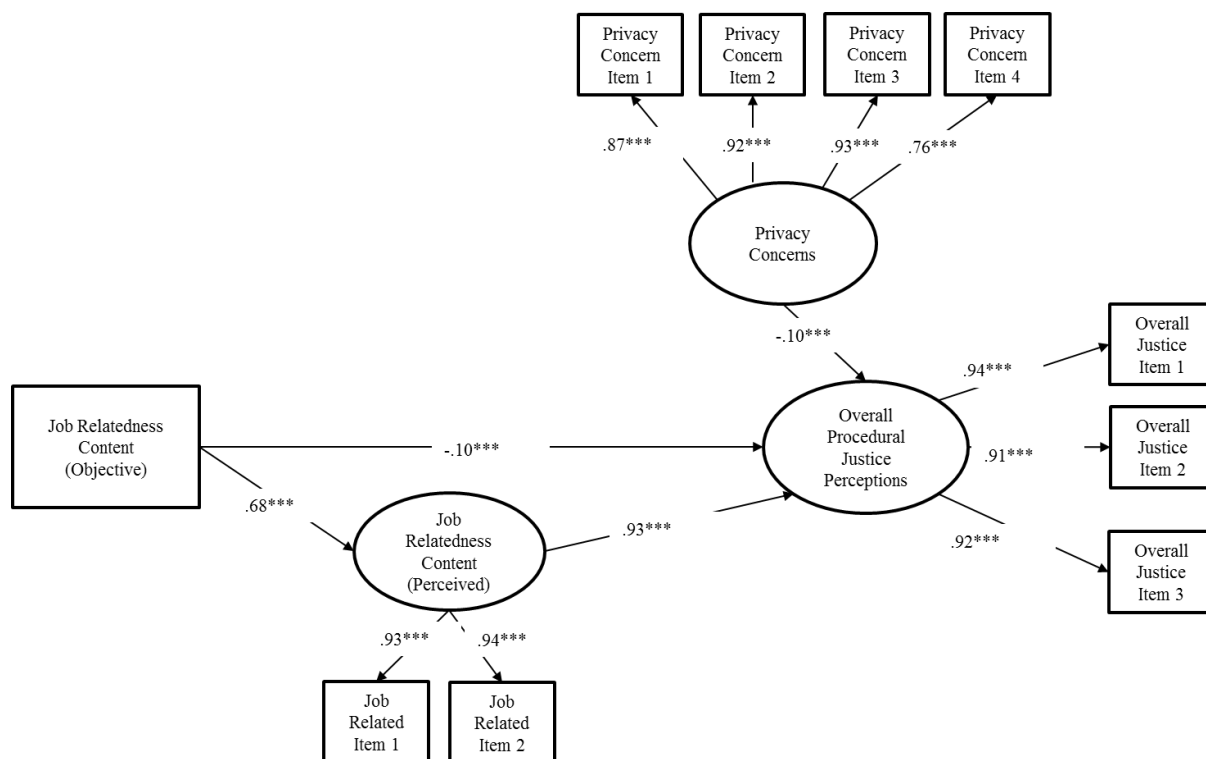
*Note.* \*\*\* $p < .001$ .

Table 33

*R<sup>2</sup> Values for Endogenous Latent Variables in the Hypothesized Path Models*

	<i>R<sup>2</sup></i>
Job Relatedness Content	
Procedural Justice Rule Perceptions	0.46
Overall Procedural Justice	0.75
Opportunity to Perform	
Procedural Justice Rule Perceptions	0.43
Overall Procedural Justice	0.68
Reconsideration Opportunity	
Procedural Justice Rule Perceptions	0.78
Overall Procedural Justice	0.53
Consistency of Administration	
Procedural Justice Rule Perceptions	0.57
Overall Procedural Justice	0.44

*Note.* The variables contributing to the prediction of each endogenous variable can be seen in Figures 13-16.



*Figure 13.* Path model for job relatedness content procedural justice rule. Standardized parameter estimates are reported. Note that “Justice Level” is dummy-coded (0=low justice, 1=high justice).

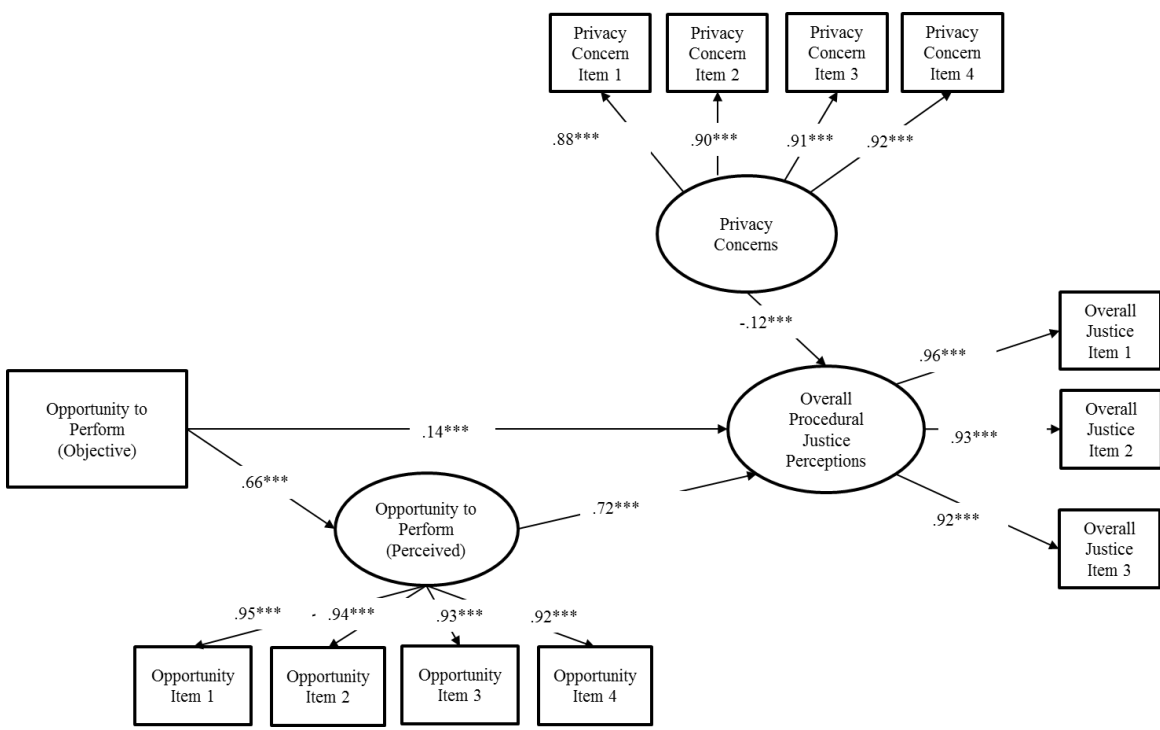


Figure 14. Path model for opportunity to perform procedural justice rule. Standardized parameter estimates are reported. Note that “Justice Level” is dummy-coded (0=low justice, 1=high justice).

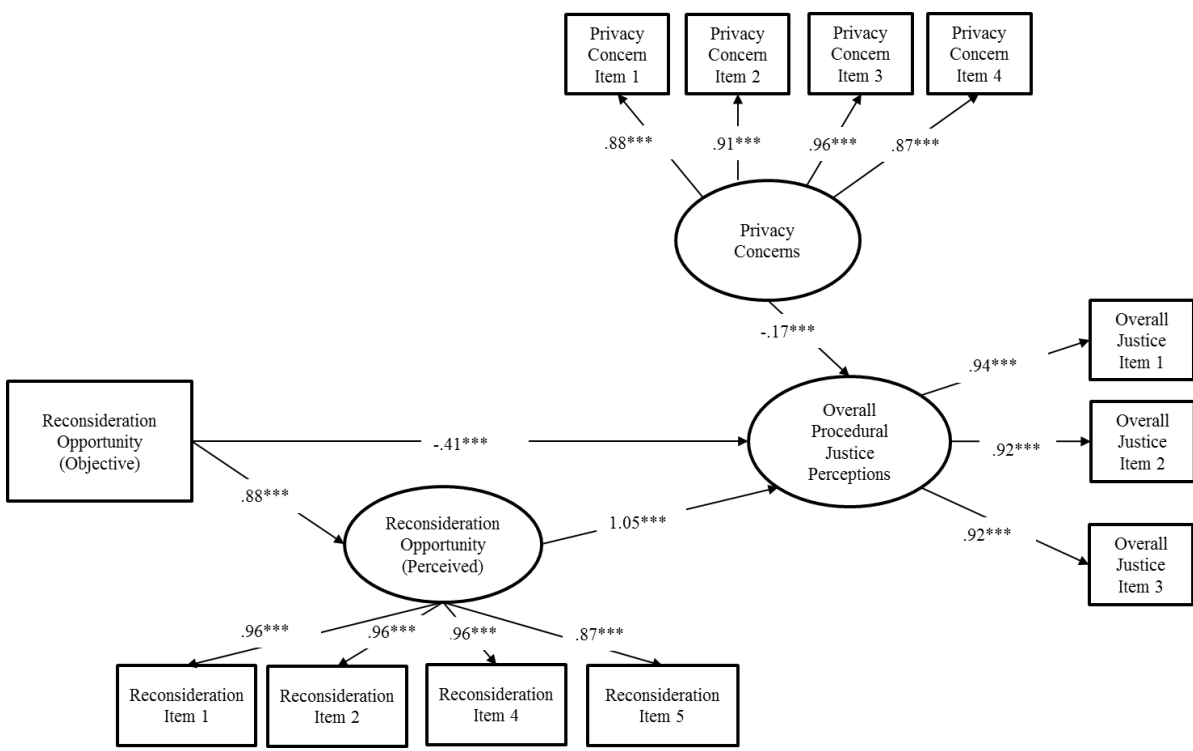


Figure 15. Path model for reconsideration opportunity procedural justice rule. Standardized parameter estimates are reported. Note that “Justice Level” is dummy-coded (0=low justice, 1=high justice).

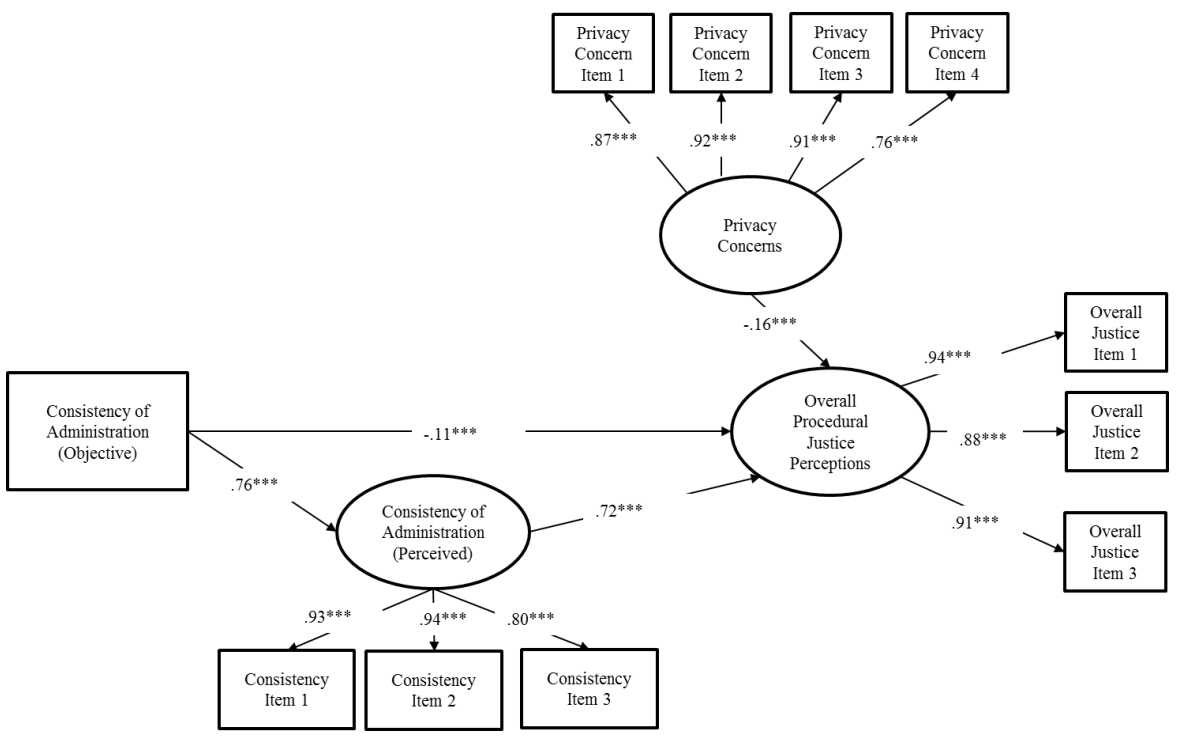


Figure 16. Path model for consistency of administration procedural justice rule. Standardized parameter estimates are reported. Note that “Justice Level” is dummy-coded (0=low justice, 1=high justice).

Table 34

*Unstandardized Path Coefficients and Standard Errors for the Hypothesized Models*

	<i>B</i>	<i>SE</i>
<b>Job Relatedness Content</b>		
Justice Level → Procedural Justice Rule Perceptions	1.69	0.06
Justice Level → Overall Procedural Justice	-0.25	0.07
Procedural Justice Rule Perceptions → Overall Procedural Justice	0.90	0.03
Privacy Concerns → Overall Procedural Justice	-0.14	0.03
<b>Opportunity to Perform</b>		
Justice Level → Procedural Justice Rule Perceptions	1.62	0.06
Justice Level → Overall Procedural Justice	0.35	0.08
Procedural Justice Rule Perceptions → Overall Procedural Justice	0.74	0.03
Privacy Concerns → Overall Procedural Justice	-0.18	0.03
<b>Reconsideration Opportunity</b>		
Justice Level → Procedural Justice Rule Perceptions	2.59	0.05
Justice Level → Overall Procedural Justice	-0.97	0.10
Procedural Justice Rule Perceptions → Overall Procedural Justice	0.84	0.04
Privacy Concerns → Overall Procedural Justice	-0.24	0.04
<b>Consistency of Administration</b>		
Justice Level → Procedural Justice Rule Perceptions	2.08	0.06
Justice Level → Overall Procedural Justice	-0.25	0.12
Procedural Justice Rule Perceptions → Overall Procedural Justice	0.62	0.05
Privacy Concerns → Overall Procedural Justice	-0.22	0.04

*Note.* All estimates significant at  $p < .001$ .

**Hypothesis 2.** Hypothesis 2 was tested by investigating the regression slopes between procedural justice rule perceptions and overall procedural justice rule perceptions. As seen in Figures 13-16, the regression slope between procedural justice rule perception and overall procedural justice perceptions are all significant. The effect was strongest for job relatedness content ( $B=.90, p<.001$ ) and reconsideration opportunity ( $B=.84, p<.001$ ) but still significant for opportunity to perform ( $B=.74, p<.001$ ) and consistency of administration ( $B=.62, p<.001$ ). This supports Hypothesis 2: participant ratings of procedural justice rule perceptions were positively related to their perceptions of overall procedural justice.

**Hypothesis 3.** Hypothesis 3 was tested using bootstrapped estimates for the mediating role of procedural justice rule perceptions on the relationship between objective procedural justice and overall perceptions of procedural justice. For bootstrapping, the data was resampled 1000 times, with the indirect effect estimated each time to create a distribution of results (Kenny, 2014). This distribution of estimates is then used to create confidence intervals for the estimates. For each model, 95% confidence intervals for the bootstrapped results of the model were assessed to identify if they contained zero. The exclusion of zero in the confidence interval indicates that the mediating relationship is significantly different from zero. As seen in Table 35, the mediation was significant in each procedural justice rule model. The effect of the mediation was strongest for reconsideration opportunity, but all of the mediating effects were significant at  $p<.001$ . Hypothesis 3 was found to be supported as procedural justice rule perceptions acted as a mediator between objective procedural justice and overall perceptions of procedural justice for all procedural justice rules.

Table 35

*Mediating Role of Procedural Justice Rule Perceptions on the Relationship Between Objective Procedural Justice Rule and Overall Procedural Justice Perceptions*

	$\beta$	95% CI
Job Relatedness Content	1.52	[1.38, 1.67]
Opportunity to Perform	1.20	[1.06, 1.34]
Reconsideration Opportunity	2.16	[1.95, 2.36]
Consistency of Administration	1.27	[1.09, 1.45]

*Note.*  $\beta$ =standardized coefficient; CI= confidence interval. All estimates are significant at  $p<.001$ .

**Testing Hypotheses 4 and 5: the role of privacy concerns in the model.** The moderating effect of privacy concerns on the relationship between procedural justice rule perceptions and overall procedural justice perceptions was tested by evaluating models that included the interaction term. For each model, the interaction term was evaluated to determine whether the model with the interaction should be retained or whether the model without the interaction term should be retained for that procedural justice rule.

The standardized model coefficients can be found in Figures 17-20. For both job relatedness (content) ( $B=-.06$ ,  $p=.06$ ) and reconsideration opportunity ( $B=-.02$ ,  $p=.34$ ), the interaction term was not significant. For job relatedness (content) and reconsideration opportunity, hypothesis 4 was rejected and the model without the interaction was retained. Opportunity to perform ( $B=-.04$ ,  $p<.05$ ) and consistency of administration ( $B=-.06$ ,  $p<.01$ ) both had significant interaction terms. The models with and without the interaction were then compared by computing  $D$ -values using log-likelihoods for each model, as recommended by Maslowsky, Jager, and Hemken (2015). The results suggest that both the opportunity to perform interaction model ( $D=4.34$ ,  $df=1$ ,  $p<.05$ ) and the consistency of administration interaction model



( $D=6.71$ ,  $df=1$ ,  $p<.01$ ) were significantly better than the associated models without the interaction. However, for job relatedness content ( $D=3.52$ ,  $df=1$ ,  $p=.06$ ) and reconsideration opportunity ( $D=.98$ ,  $df=1$ ,  $p=.75$ ) the interaction did not result in a superior model and as a result the model without the interaction was determined to sufficiently represent the relationships between the variables. The  $R^2$  values for each of the models can be found in Table 36. Although the interaction terms were statistically significant, the increase in  $R^2$  was so small for each model that it was less than .01, even for the models with significant interaction terms. As a result, the interaction between procedural justice rule perceptions and privacy concerns was determined to not be practically significant in predicting overall procedural justice perceptions. Hypothesis 4 was not supported.

Table 36

*R<sup>2</sup> Values for the Endogenous Variables in Each Model*

Modeled Outcome	$R^2$
<b>Job Relatedness Content</b>	
Procedural Justice Rule Perceptions	0.46
Overall Procedural Justice, without Interaction	0.78
Overall Procedural Justice, with Interaction	0.78
<b>Opportunity to Perform</b>	
Procedural Justice Rule Perceptions	0.43
Overall Procedural Justice, without Interaction	0.61
Overall Procedural Justice, with Interaction	0.61
<b>Reconsideration Opportunity</b>	
Procedural Justice Rule Perceptions	0.78
Overall Procedural Justice, without Interaction	0.73
Overall Procedural Justice, with Interaction	0.73
<b>Consistency of Administration</b>	
Procedural Justice Rule Perceptions	0.57
Overall Procedural Justice, without Interaction	0.50
Overall Procedural Justice, with Interaction	0.50

*Note.* Each  $R^2$  value represents the variance explained for each outcome variable in the model. For the Overall Procedural Justice Perceptions, values are given both with and without the interaction between procedural justice perceptions and privacy, for comparison purposes.

Finally, Hypothesis 5 was investigated by assessing the regression slope for the relationship between privacy concerns and overall procedural justice perceptions. The standardized coefficients can be seen in Figures 17-20. For each model, the regression slope for the relationship between privacy concerns and overall justice perceptions supports the hypothesis that privacy concerns are negatively related to overall procedural justice perceptions. The effect of privacy concerns was similar across the justice rules, although it was strongest for reconsideration opportunity ( $B=-.17, p<.001$ ), followed by consistency of administration ( $B=-.16, p<.001$ ), opportunity to perform ( $B=-.12, p<.001$ ), and job relatedness content ( $B=-.10, p<.001$ ).

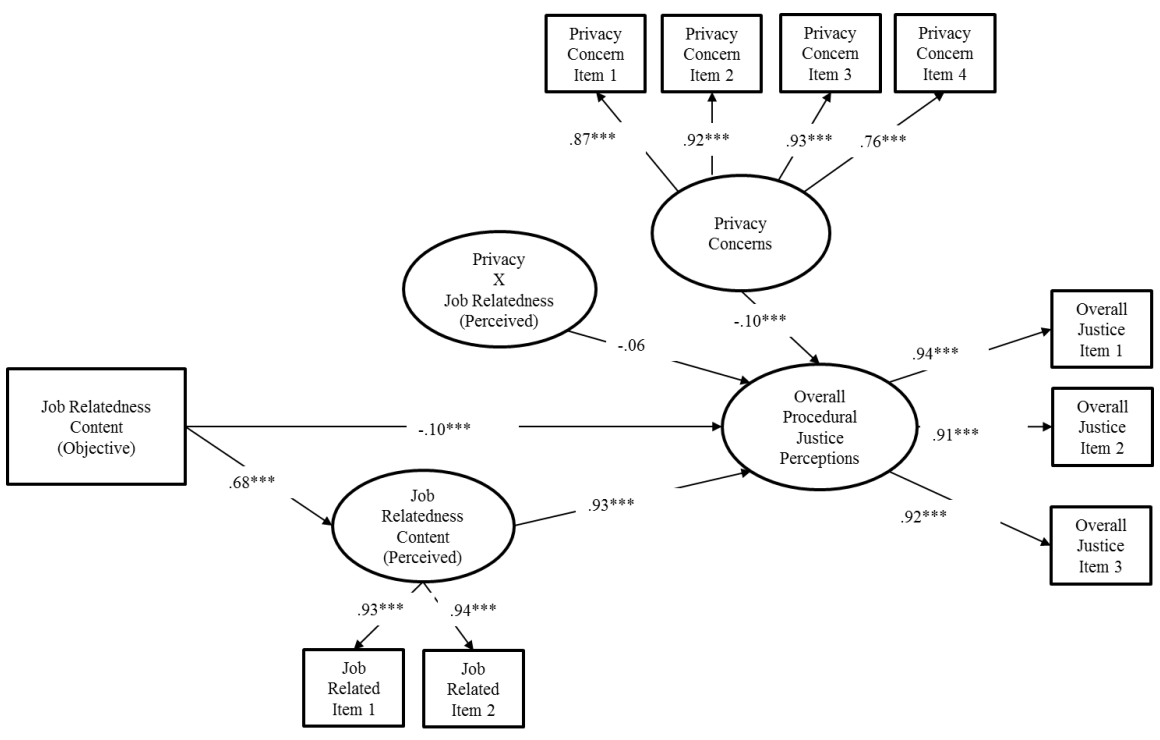


Figure 17. Path model for job relatedness content procedural justice rule. Standardized parameter estimates are reported. Note that “Justice Level” is dummy-coded (0=low justice, 1=high justice).

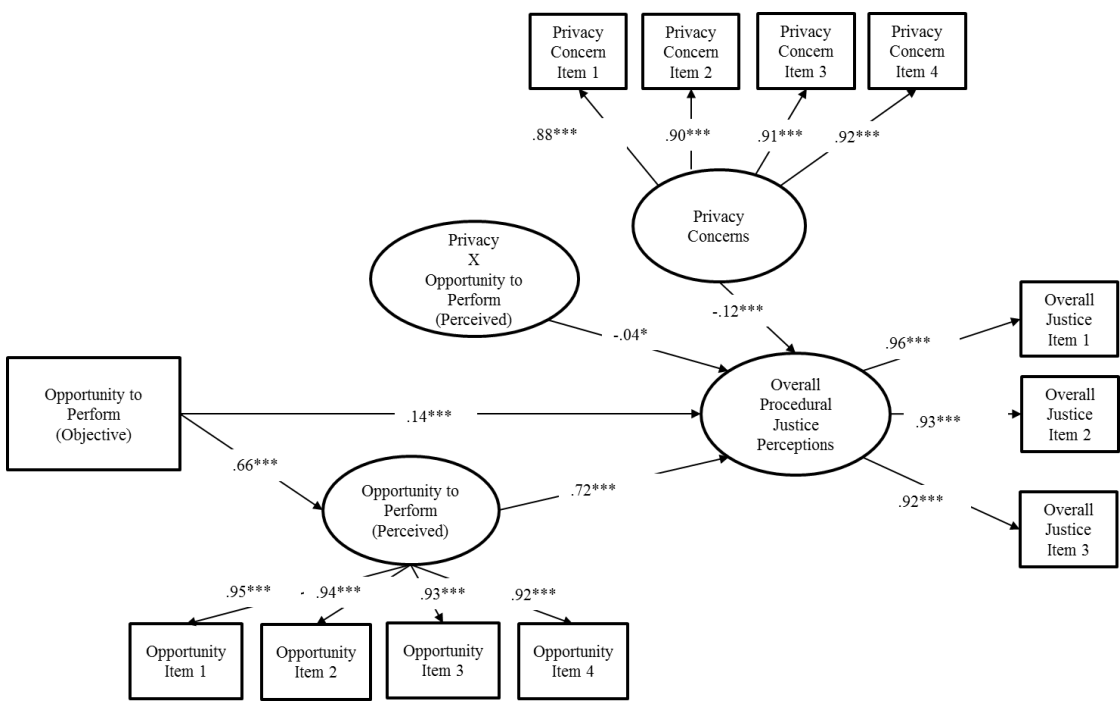


Figure 18. Path model for opportunity to perform procedural justice rule. Standardized parameter estimates are reported. Note that “Justice Level” is dummy-coded (0=low justice, 1=high justice).

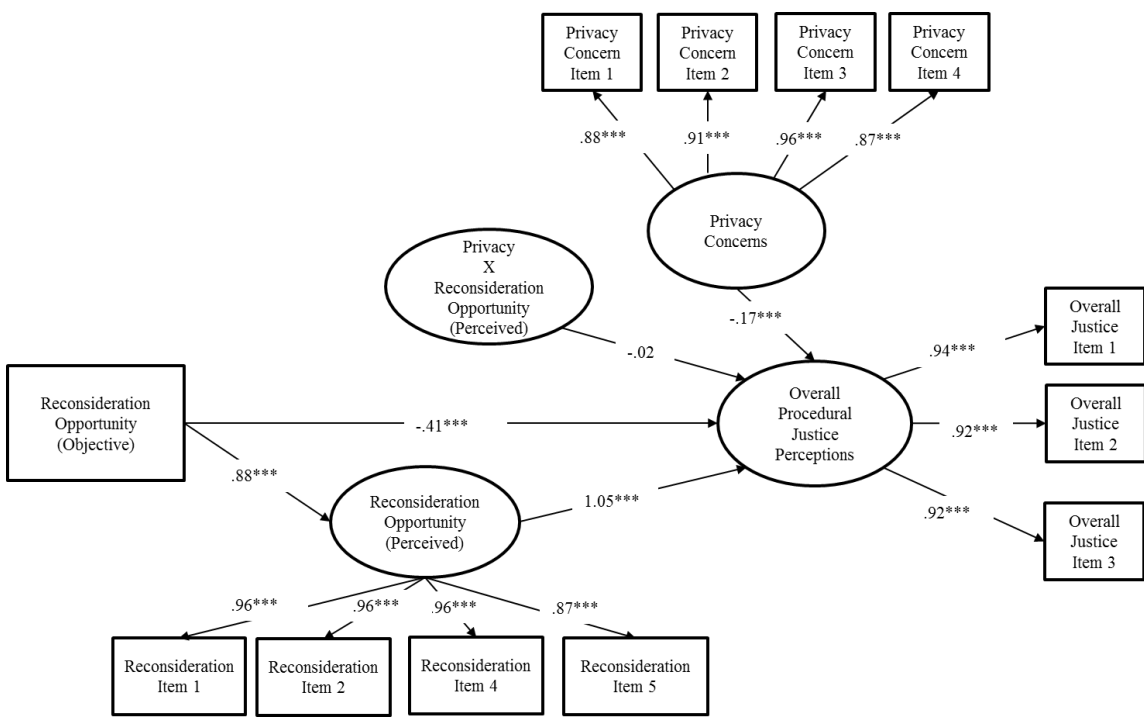


Figure 19. Path model for reconsideration opportunity procedural justice rule. Standardized parameter estimates are reported. Note that “Justice Level” is dummy-coded (0=low justice, 1=high justice).

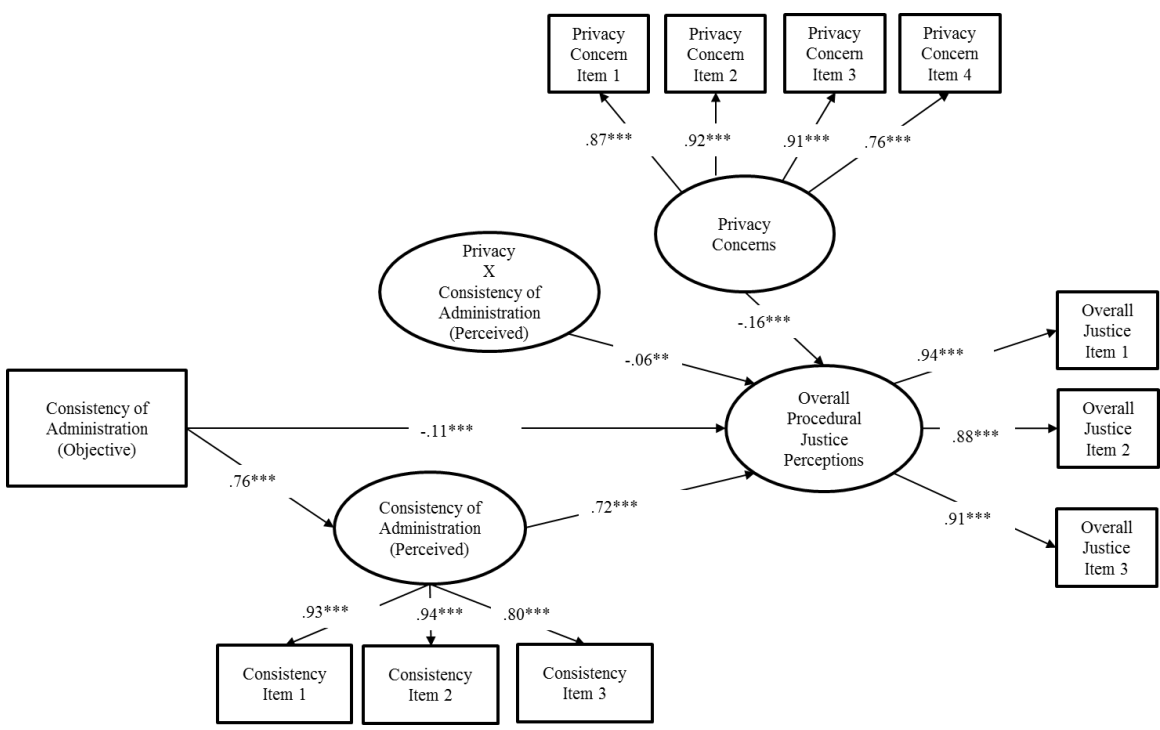
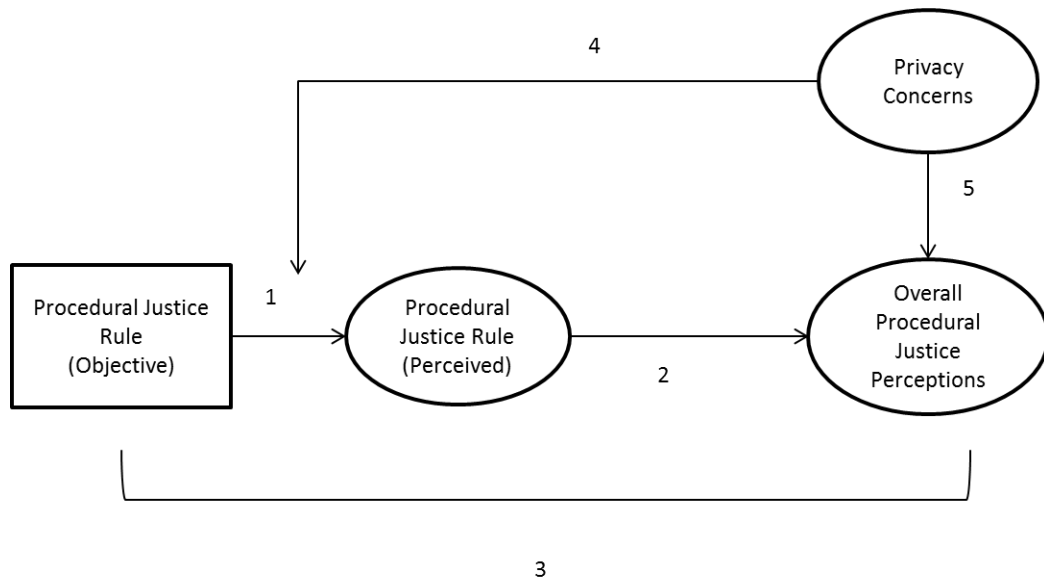


Figure 20. Path model for consistency of administration procedural justice rule. Unstandardized parameter estimates are reported and standard errors are in parentheses. Note that “Justice Level” is dummy-coded (0=low justice, 1=high justice).

**Post-hoc analyses.** A series of post-hoc analyses were also conducted to investigate an alternative role of the theorized moderator. These analyses consisted of testing a new model for each of the justice rules in which privacy concerns moderated the relationship between objective procedural justice rules and perceived procedural justice rules. A diagram depicting this conceptual model can be seen in Figure 21. One model was tested for each justice rule to identify if model fit improved with the moderating effect of privacy concerns earlier in the theoretical model. Again, Mplus was utilized to test an SEM model for each of the justice rules. Fit statistics, the moderation, and the overall variance explained were compared to identify if the new model fit better than the proposed theoretical model.

To test the new interaction, the same procedure was followed as in the original analyses in which a model with and without the interaction were both tested in order to identify if the interaction significantly explained variance beyond the main effect. The interaction was statistically significant for the consistency of administration model ( $B=.19, p<.05$ ). The other models, reconsideration opportunity ( $B=.08, p=.15$ ), opportunity to perform ( $B=.08, p=.31$ ), and job relatedness content ( $B=.15, p=.05$ ), all failed to reach significance. However, the effect of the interaction was small from a practical standpoint even for the consistency of administration model, as seen in Table 37. Inclusion of the interaction term between privacy concerns and objective procedural justice increased the  $R^2$  associated with procedural justice rule perceptions by only .01 in that model. I thus concluded that this increase provided limited practical significance. Overall, the post-hoc analyses did not support the proposed alternative role for the moderator earlier in the mediational pathway tested.



*Figure 21.* Post-hoc theoretical model of applicant reactions to the use of social networking site data and the moderating role of need for privacy.



Table 37

*R<sup>2</sup> Values for the Endogenous Variables in Each Post Hoc Model*

Modeled Outcome	<i>R<sup>2</sup></i>
Job Relatedness Content	
Procedural Justice Rule Perceptions, without Interaction	0.47
Procedural Justice Rule Perceptions, with Interaction	0.48
Opportunity to Perform	
Procedural Justice Rule Perceptions, without Interaction	0.43
Procedural Justice Rule Perceptions, with Interaction	0.43
Reconsideration Opportunity	
Procedural Justice Rule Perceptions, without Interaction	0.78
Procedural Justice Rule Perceptions, with Interaction	0.78
Consistency of Administration	
Procedural Justice Rule Perceptions, without Interaction	0.58
Procedural Justice Rule Perceptions, with Interaction	0.59

*Note.* Each *R<sup>2</sup>* value represents the variance explained for each outcome variable in the model. For the Overall Procedural Justice Perceptions, values are given both with and without the interaction between procedural justice perceptions and privacy, for comparison purposes.

## CHAPTER VI DISCUSSION

The present study has made some important contributions not only to our understanding of procedural justice perceptions when using SNS data in employee selection but also to the procedural justice literature. Importantly, this research provides both a theoretical contribution for future research but also practical information for practitioners to utilize in their work.

### **Contributions to Procedural Justice Literature**

The contributions to the procedural justice literature are the primary theoretical contributions of this study. This study is the first of its kind to investigate procedural justice rule models in the context of the use of SNS data in the employee selection context. Gilliland (1993) proposed that invasiveness of the selection system could be incorporated into the theoretical model, and in the case of SNS data in selection this is especially relevant because this data can often be collected without the person's knowledge unlike a traditional selection test. There are three specific theoretical contributions: the investigation of an interaction between privacy concerns and justice rule perceptions on overall justice perceptions, support for previous justice models in the SNS data context, and the demonstration that justice rules can be manipulated in isolation for research purposes.

**Privacy concerns and procedural justice rule perceptions interaction.** The interaction of procedural justice rule perceptions and privacy concerns tested in this study sought to extend the Gilliland (1993) model in this context. Bauer et al. (2006) had also incorporated privacy into their model of procedural justice perceptions in a web-based testing context, but the current study took this further by testing all of Gilliland's (1993) model with the addition of privacy as a moderator as well as a direct precursor to overall procedural justice perceptions. Although the direct relationship was supported, the interaction was not supported in the results for the planned

analyses. The interaction between objective procedural justice and privacy concerns was also tested post-hoc, and although the effect was statistically significant for consistency of administration, with the small overall increase in DV variance explained was too small to be considered meaningful. However, the study does provide an advancement in present theory as Gilliland (1993) had proposed including some aspects of privacy violations and Bauer et al. (2006) had incorporated privacy into a procedural justice model, the testing of the broader model with the inclusion of privacy concerns is new.

In the present study, each procedural justice rule was tested in a separated model as it was unknown whether the results would differ by selection rule. Generally, the relationships were similar across justice rules. The manipulation was stronger for reconsideration opportunity and consistency of administration, but more variance was explained for overall procedural justice perceptions in the job relatedness content and reconsideration opportunity models. These differences suggest that there is more to learn in regards to how different justice rule violations effect overall perceptions of procedural justice.

The interaction between procedural justice rule perceptions and privacy concerns was not supported in the planned analyses. This provides further support for the Bauer et al. (2006) model, which demonstrated a direct relationship between overall procedural justice perceptions and privacy concerns. It appears that when considering overall procedural justice perceptions, applicants weigh perceived violations of procedural justice rules along with their privacy concerns, but the impact of procedural justice rule perceptions does not depend on the severity of privacy concerns.

As Gilliland (1993) had not included privacy concerns in his procedural justice model, and Bauer et al. (2006) had not tested the full model Gilliland (1993) proposed, this

incorporation of the two models is an addition to the literature. Gilliland (1993) discussed various ways privacy concerns may impact his model, but did not include privacy concerns explicitly as a predictor of overall procedural justice perceptions. Given the results of the present study, one possible explanation for the relationship is that privacy violations could affect overall procedural justice perceptions in the same way that any other perceived procedural justice rule violations do. Although the present study investigated participants' privacy concerns, a potential future study could include a condition that violates privacy, measure the perceived privacy violation and privacy concerns, and study the impact on overall procedural justice perceptions. This would potentially support the addition of another procedural justice rule in Gilliland's (1993) model.

**Support for Gilliland (1993) and Bauer et al. (2006).** In addition to extending procedural justice theory, support was found for prior models. This study found support for the formal procedural justice rules relationships in the Gilliland (1993) model. The isolated testing of the mediating role of procedural justice rule perceptions in the relationship between objective procedural justice perceptions and overall procedural justice reactions answers the call of Ryan and Ployhart (2000) to test mediations to better understand applicant cognitive processes. Additionally, support was found for Gilliland's (1993) classic procedural justice model in a very modern selection situation: using SNS data in the employee selection process. Thus, not only is the classic model supported but also expanded into a context that is relatively new to the employee selection literature.

In support of Bauer et al. (2006), the direct relationship between privacy concerns and overall procedural justice perceptions was supported for each of the procedural justice rules. This suggests that privacy concerns have a unique relationship with overall procedural justice

perceptions outside of moderating the relationship between procedural justice rule perceptions and overall procedural justice reactions. It is important to note that the Bauer et al. (2006) piece used the web-based testing context and the present study expanded our knowledge by applying a portion of that model to the SNS data use in employee selection context. This suggests that this relationship could be supported in other technological employee selection settings where privacy may be a concern. Additionally, the present study improved upon the Bauer et al. (2006) methodology by utilizing privacy concern items that were not confounded with privacy protection knowledge.

This relationship suggests that for researchers investigating applicant reactions to the use of SNS data in employee selection, individual differences in privacy concerns should not be overlooked as a predictor. Further, more work is needed to understand contexts in which privacy concerns are more or less important and what can be done to allay the concerns of applicants with strong privacy concerns. This is especially important in the context of SNS data in employee selection as the data collection methods often are not transparent and the guidelines both legally and professionally are unclear.

**The experimental manipulation of procedural justice rules.** Few studies have manipulated selection system characteristics to investigate Gilliland's (1993) model. Gilliland (1995) analyzed critical incidents to support the model, but this is a weak test of causality when compared to testing each justice rule using an experimental manipulation. Although Lueke (2004) did use an experimental manipulation, she manipulated multiple justice rules at a time to create general "high" and "low" justice conditions with each rule similarly aligned. The present study has demonstrated that the procedural justice rules can in fact be manipulated separately and participants perceive these manipulations accurately. Further, the present study provided explicit

support for the Gilliland (1993) model through the experimental manipulation of procedural justice rules. This methodology can be utilized by future researchers to better understand unique aspects of the justice rules and further investigate the Gilliland (1993) model.

The comparisons of the justice conditions with the control condition also provided additional information regarding applicant reactions to ambiguous situations. Generally, the control condition was significantly different from the high and low justice conditions for both overall procedural justice reactions and SPJS subscales, falling in between the high and low conditions. However, the effect sizes consistently demonstrated that the control condition was viewed more similarly to high justice conditions than to low justice conditions. This suggests that applicants do not assume justice rules are being violated when they do not have information on SNS data use in employee selection. Instead, participants appeared to view a lack of information as an indication that justice rules were upheld, as evidenced by their high ratings of specific and overall procedural justice for the control condition. More research is needed to understand if this is true across different employee selection contexts. Additionally, the present study investigated privacy concerns but other individual differences, like integrity or skepticism, could be studied to understand if they behave similarly to privacy concerns. Participants who generally mistrust others, or are dishonest themselves, may be less likely to believe that an organization that does not reference justice rules in application materials is likely to be upholding them.

Unfortunately, not all of the intended procedural justice rules were successfully manipulated. This was surprising, since some of the justice rules, such as reconsideration opportunity and consistency of administration were manipulated relatively easily. It is possible that in the context of using SNS data in employee selection job relatedness predict was more

challenging to convey clearly to participants than the other procedural justice rules. One reason for this difference may be that participants are not used to seeing and interpreting the predictive value of an abstract job performance predictor, like SNS data. Hausknecht et al. (2004) found in a meta-analysis that interviews, work samples, and resumes were viewed more favorably by participants than less face-valid selection tools such as cognitive ability tests, personality measures, and biodata. By this reasoning, participants understood that the scenario for job relatedness predict was low on procedural justice, but they were unable to distinguish job relatedness predict from the other justice rules because the predictive power was unclear. Another possible explanation is that the context of SNS data made it challenging to describe job relatedness predict in a way that completely distinguished it from justice rules like job relatedness content. For a researcher, the distinction may be very clear, but for a layperson, especially in this context, it may be challenging to describe a selection procedure that is predictive of future job performance without confounding it with the content of the information.

### **Practical Implications**

A few practical implications can be derived from this study. One timely finding is that practitioners need to be concerned about procedural justice rule violations when using SNS data in employee selection. The fact that these justice rule perceptions could be manipulated through scenarios suggests that many of the same best practices should apply in this selection setting as others to avoid violating procedural justice rules. Given the potential minefield of ethical issues in using this kind of data in employee selection (Pate, 2012), it would be prudent for practitioners to consider if SNS data provides useful information and to create standardized practices around its collection and use to avoid negative reactions from applicants.

Importantly, the experimental manipulation provides practitioners guidance regarding how applicants would react to different practices when using SNS data in employee selection. Reconsideration opportunity was found to have the strongest manipulation of justice rule perceptions and a strong mediating effect of rule perceptions. Organizations should be especially concerned about communicating procedures related to reconsideration opportunity to avoid negative reactions; on the other hand, an organization with robust systems to allow applicants to review and correct misinformation may want to tout these benefits as they will likely have a strong impact on applicant reactions. Consistency of administration also had a strong manipulation, and organizations with strict rules about maintain consistency of SNS data collection and evaluation may wish to inform applicants to capitalize on positive procedural justice perceptions. The two rules specifically related to content, job relatedness and opportunity to perform were each weaker manipulations although each of these models explained more variance overall in procedural justice perceptions. More work is needed, but these results suggest that practitioners concerned about overall reactions and their relationship to intentions (Hausknecht et al., 2004) should focus on making SNS data use in selection face valid. This could be achieved by using career-specific data such as LinkedIn or describing for applicants how the data is related to the job.

Another way to consider the study's findings is the impact of disclosing SNS data collection in employee selection. This experiment investigated reactions to reported practices, but it should not be assumed that organizations are always transparent about their practices. Further, some organizations collect SNS data by asking for usernames or account information directly, but others collect the information passively without applicants providing information on their SNS membership. Applicants may feel differently if they submit their own username to the



organization than if the organization states that information will be collected. In the former situation, the applicant maintains some control by electing to provide usernames, rather than knowing their data will be culled from the internet through the organization's search process.

An additional aspect is that this study speaks most directly to situations where applicants are aware of SNS data collection. For organizations systematically collecting SNS data for employee selection, the process may require applicants to submit information such as usernames for the organization to gain access to their data. In this setting, applicants know their data is being collected but they do not know what is being done with it. The present study does not speak to that context, unless applicants know that the account usernames they are submitting only contain job relevant data that allow them to show their suitability for the job—rarely the case with SNS data. This is especially important in the United States, where privacy laws are far more lax than places like the European Union where organizations are required to disclose their data practices. Practitioners collecting account information from applicants without telling them how it will be used should be cautioned that applicants may not assume the best under those conditions, unlike the control condition in this study that did not discuss SNS data explicitly.

The results suggest that not disclosing SNS data collection is judged more similarly to procedurally just practices than unjust practices. However, this does not mean that organizations should hide their practices. Instead, organizations using less procedurally just processes need to weigh the benefits of using SNS data in the selection process with the negative impact of these practices being disclosed. Negative procedural justice reactions are associated with a host of negative outcomes (Hausknecht et al., 2004). However, research suggests that SNS data can provide incremental prediction of job performance above and beyond traditional measures (Kluemper, Rosen, & Mossholder, 2012). Practitioners who are using processes that may be

perceived as unjust need to weigh risks of disclosing these practices with the improvements in the predictive power, and this research suggests that unjust practices related to SNS data use may not always be worth the risks. Future research could investigate the impact of learning about justice violations during the application process and after the fact to better understand how this kind of information impacts applicant intentions throughout the selection process in the SNS data collection context.

Practitioners should be concerned about applicants' privacy concerns and the relationship to overall procedural justice perceptions. Although the present study investigated the relationship between these two variables without considering more distal outcomes, such as intentions to accept, meta-analysis suggests that procedural justice reactions are related to a variety of important outcome variables (Hausknecht et al., 2004). Practitioners would rarely have an opportunity to measure privacy concerns directly in a selection setting, but considering how to allay privacy concerns through transparent practices is advisable.

### **Limitations and Future Directions**

Although the present study made some important contributions to the literature, it also has some limitations that should be considered. The use of an experimental manipulation to isolate each justice rule represents increased internal validity at the expense of external validity. Each scenario only spoke to one justice rule and advised participants that the scenario was entirely new and previously viewed scenarios should not be considered. However, it is very possible that in a real selection setting applicants would have some information about multiple justice rules at once or might infer based on their general knowledge of employee selection (correctly or incorrectly). When multiple justice rules are considered at one time, there is a potential for interactions which are unexplored in this study but could be a fruitful area for future

research. Organizations may also vary the degree of detail provided regarding their intentions. In the present study, specific justice rules were referenced which mimics what job applicants in the European Union would be told given their privacy laws, but this level of disclosure is uncommon in the United States. Organizations may instead ask for SNS account information or inform applicants that SNS data is being collected without indicating how the data will be used. Participants may not view these ambiguous conditions as favorably as the control condition, in which SNS data was not mentioned at all, and these effects are likely to vary by country. Future research could investigate the role of ambiguity in justice reactions and variation in reactions by nation or culture.

The experimental methodology of this study was critical for testing the hypotheses, but as a result, participants knew they were not actually applying for a position which may have impacted their reactions. Hausknecht et al. (2004) found that effects were stronger in hypothetical selection contexts than in actual selection contexts. At the high end, Hausknecht et al (2004) found for consistency of administration, the relationship between procedural justice rule perceptions and overall procedural justice reactions was about 3 times greater in hypothetical contexts ( $r=.44$ ) than authentic contexts ( $r=.17$ ). At the low end, for opportunity to perform the difference in the same relationship was considerably smaller for hypothetical ( $r=.48$ ) than for authentic contexts ( $r=.45$ ). It is expected that the findings in the present study may represent a ceiling for the hypothesized relationships and the actual effect may be significantly smaller under a high-stakes selection setting, but this may depend upon the specific justice rule, given the meta-analytic findings (Hausknecht et al., 2004). Experimental manipulation of procedural justice in an actual selection setting would generally be considered unethical and will

likely never occur. Future researchers should continue to explore these effects in actual and hypothetical contexts to further our understanding of applicant reactions in employee selection.

Related to the methodology, the measurement of privacy concerns at the end of the experimental conditions is a possible limitation of the study. The placement of this measure in the study timeline was selected in order to avoid signaling to participants that the study would involve possible privacy violations, which may have influenced their procedural justice perceptions. However, this decision involved a tradeoff in which participants were asked about their privacy concerns after imagining potential privacy violations. As a result of the timing of the privacy concerns measure, the relationships with privacy concerns could work in the opposite direction such that imagining low procedural justice conditions caused participants to have heightened privacy concerns. Future research could address this issue by placing a privacy concerns measure prior to the manipulation which, when paired with the present study, could provide a clearer understanding of the underlying causal relationship.

Another limitation is the inability to successfully manipulate job relatedness content. Several attempts were made to create a strong manipulation, but unfortunately participants were not able to differentiate it from the other justice rules. As discussed, this rule may be more challenging for applicants to understand in this context without conflating it with other procedural justice rules. Further research is needed to explore under what conditions participants are and are not able to understand explicitly the difference between job relatedness content and prediction. Other researchers have also at times followed Gilliland's (1993) model while utilizing the Bauer et al. (2001) scale, perhaps because they, too, had actual or perceived difficulty replicating the results (LaHuis, 2005; Lueke, 2004; Donald M Truxillo, Bauer, Campion, & Paronto, 2006; Wallace et al., 2006), which again suggests this problem is not

isolated to the present study. One potential study could identify realistic scenarios in which one job relatedness justice rule is violated but the other was not in a variety of settings and ask participants to rate them on job relatedness justice rule perceptions to better understand applicant perceptions of job relatedness.

Although mTurk was selected specifically because its participants have been found to be more like employee populations when compared to student samples (Behrend et al., 2011), the sample is not without its limitations. As discussed before, this sample was not actually applying for a job and therefore may have perceived the scenarios differently than they would have in a high stakes setting. Additionally, all of the participants were participating via mTurk which suggests some basic level of computer access and proficiency, which may not be true for all applicant populations, as well as an interest in sharing information about themselves for small amounts of money. This computer experience and willingness to participate in studies in mTurk may suggest these participants could have lower privacy concerns about SNS data than some segments of applicant populations. If this is the case, the moderating role of privacy concerns may have been weakened as these participants may not see a violation of privacy in high justice conditions. However, a curvilinear relationship between computer experience and privacy concerns has been found, such that those with the least experience and the most experience tend to have the most privacy concerns (Porr & Ployhart, 2004). If the mTurk sample has fewer participants with low computer experience but more with high computer experience, when compared to the general population, the effect may be very similar to what would be found in the population. The descriptives for the privacy concerns scale in the present study were similar to those reported by Dinev and Hart (2004) and Mohamed and Ahmed (2012), which helps to ameliorate this concern, suggesting that the mTurk population was similar in privacy concerns to

other populations. Additionally, the descriptives suggest a significant but relatively weak relationship between age and privacy concerns in the study's sample. Again, this suggests that the mTurk population was not abnormal. Landers and Behrend (2015) discussed the tradeoffs inherent in all convenience samples, including mTurk, suggesting that the costs and benefits of any convenience sample need to be matched to the particular context. Given the needs of the present study, mTurk was a prudent choice although more work could be done to investigate the relationship between privacy concerns and willingness to participate in platforms such as mTurk.

## **CHAPTER VII**

### **CONCLUSIONS**

As organizations seek to improve their employee selection methods by incorporating information from sources such as SNS, it is critical that research keeps pace to provide recommendations. This study provides insight into applicant reactions to the violation of specific procedural justice rules in this context, and incorporates the role of privacy concerns into overall procedural justice perceptions. The findings not only supported previous theoretical and empirical work, but also expanded the body of knowledge by combining these prior models and manipulating the procedural justice rules individually. Implications for practitioners include following best practices when developing selection systems that incorporate SNS data and being transparent about the procedures to collect and utilize this information.

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## Appendix A

### Baseline Instructions:

“You are applying to a job. You will be asked to take an ability test as part of the application process. The information gathered from your application will be weighed along with your scores on the test to determine if you will be given an interview.”

### Experimental Instructions:

“You are applying to a job. The organization is going to investigate your social network profile as part of the selection process, and then you will be asked to take an ability test as part of the application processes. The information gathered about your social network use will be weighed along with your application and your scores on the test to determine if you will be given an interview. Here is some additional information about the organization’s investigation into your social network profile:”

### Job Relatedness-Content:

*High:* “The organization will collect information from a social network where you post job-related information (such as your resume) and connect with other professionals.”

*Low:* “The organization will collect information from a social network where you post information about your personal life (such as life events) and connect with family and friends.”

### Job Relatedness-Predict:

*High:* “The organization will collect information from a social network that would show them how good a worker I would be.”

*Low:* “The organization will collect information from a social network that would not show them how good a worker I would be.”

### Opportunity to Perform:

*High:* “The social network allows you to demonstrate knowledge, skills, and abilities related to your profession through documents like your resume or a portfolio of your work, which will be seen by the organization.”

*Low:* “The social network does not allow you to demonstrate your knowledge, skills, and abilities related to your profession through documents like your resume or a portfolio of your work.”

Reconsideration Opportunity:

*High:* You will be allowed to review the information collected by the organization from your social network profile and you will be given the opportunity to dispute any decisions made based on that information.

*Low:* You will not be allowed to review the information collected by the organization from your social network profile and you will not be given the opportunity to dispute any decisions made based on that information.

Consistency of Administration:

*High:* The organization has a process for collecting social network profile information that ensures the same information is collected from each applicant’s profile by trained professionals who are held to strict standards.

*Low:* The organization allows hiring managers to collect social network profile information and does not oversee this process in any way. This means that each manager has different standards for how this information is collected and evaluated; the organization cannot guarantee that the information from your social network profile will be collected and evaluated according to the same standards as your fellow applicants.



## **Appendix B**

Please rate your agreement with the following statements. (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree)

### Job Relatedness (Content)

1. It would be clear to anyone that the information collected in this selection process is related to the job.
2. The information collected in this selection process was clearly related to the job.

### Job Relatedness (Predictive)

1. A person who is selected based on the information collected in this selection process can do the job well.
2. A person who is selected based on the information collected in this selection process will be a good employee.

### Opportunity to Perform

1. I could really show my skills and abilities through the information collected in this selection process.
2. The information collected in this selection process would allow me to show what my job skills are.
3. The information collected in this selection process gives applicants the opportunity to show what they can really do.
4. I would be able to show what I can do through the information collected in this selection process.

### Reconsideration Opportunity

1. I would be given ample opportunity to have the information collected in this selection process rechecked, if necessary.
2. There would be a chance to discuss the information collected in this selection process with someone.
3. I feel satisfied with the process for reviewing the information collected in this selection process.
4. Applicants would be able to have the information collected in this selection process reviewed if they wanted.
5. The opportunities for reviewing the information collected in this selection process are adequate.

#### Consistency

1. The information collected in this selection process was collected from all applicants in the same way.
2. There were no differences in the way the information was collected in this selection process between applicants.
3. In this selection process, the organization made no distinction in how they treated applicants.

## Appendix C

### Overall Procedural Justice Reactions

Please rate your agreement with the following statements. (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree)

1. Overall, I believe that the use of social media data in this selection process is fair.
2. I feel good about the way the use of social media data in this selection process works.
3. The use of social media data in this selection process is fair to job applicants.

## Appendix D

### Demographics

1. What is your age?
2. What is your highest level of education attained?
  - a. Some high school
  - b. High School diploma
  - c. Some college
  - d. Associate's degree
  - e. Bachelor's degree
  - f. Master's Degree
  - g. Doctoral Degree
3. Which of the following best describes your race?
  - a. White
  - b. African American
  - c. Hispanic
  - d. Asian
  - e. American Indian/Pacific Islander
  - f. Other
4. What is your gender?
  - a. Male
  - b. Female
  - c. Other

5. How often do you use social networking sites, such as Facebook, LinkedIn, Pinterest, or Instagram?

- a. Daily
- b. Several times a week
- c. Once a week
- d. Several times a month
- e. Once a month
- f. Less than once a month
- g. Never

6. Which of the following social networking sites do you use? Please select all that apply.

- a. Facebook
- b. Instagram
- c. LinkedIn
- d. Twitter
- e. Google Plus
- f. Tumblr
- g. Pinterest
- h. Snapchat
- i. Other

## Appendix E

### Need for Privacy:

Please rate your agreement with the following statements. (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree)

1. I am concerned about social networking sites because of what others might do with my personal information.
2. I am concerned about social networking sites because my personal information could be used in a way I did not foresee.
3. I am concerned social networking sites because my personal information could be misused.
4. I am concerned that my personal information on social networking sites can be accessed without my permission.

## Appendix F

### Job Relatedness-Content:

*High:* “The organization will examine all of your social media profiles but only collect information that appears related to the job you are applying for.”

*Low:* “The organization will examine all of your social media profiles and collect any information it can find about you, even if it is not related to the job you are applying for.”

### Job Relatedness-Predict:

*High:* “The organization will collect information from all of your social media profiles that they believe will predict success on your future job.”

*Low:* “The organization will collect information from all of your social media profiles regardless of whether they believe the information will predict success on your future job.”

### Opportunity to Perform:

*High:* “You will be able to highlight information from your social media profiles to share with the organization that show off your skills and related work experiences.”

*Low:* “The organization will decide which information from your social media profiles is relevant to hiring you.”

### Reconsideration Opportunity:

*High:* “You will be allowed to review the information collected by the organization from your social media profiles and you will be given the opportunity to dispute any decisions made based on that information.”

*Low:* “You will not be allowed to review the information collected by the organization from your social media profiles and you will not be given the opportunity to dispute any decisions made based on that information.”

Consistency of Administration:

*High:* “The organization has a process for collecting social media profile information that ensures the same type of information is collected from each applicant’s profile.”

*Low:* “The organization allows recruiters and managers to collect whatever social media profile information they want, so the type of information recorded from your social media profiles may not be the same as anyone else’s.”



## Appendix G

### Job Relatedness-Content:

*High:* “The organization will examine all of your social media profiles but only collect information that appears related to the job you are applying for.”

*Low:* “The organization will examine all of your social media profiles and collect any information it can find about you, even if it is not related to the job you are applying for.”

### Job Relatedness-Predict:

*High:* “The organization will collect information from all of your social media profiles that they believe will predict success on your future job. Research has suggested that this kind of information can be used to select people who will perform this job well.”

*Low:* “The organization will collect information from all of your social media profiles regardless of whether they believe the information will predict success on your future job. Research has suggested that this kind of information cannot be used to select people who will perform this job well.”

### Opportunity to Perform:

*High:* “You will be able to highlight information from your social media profiles to share with the organization that show off your skills and related work experiences.”

*Low:* “The organization will decide which information from your social media profiles is relevant to hiring you. You will have no opportunity to select what information the organization gathers. The organization will use any and all of this information when deciding whether to hire you for the job.”

### Reconsideration Opportunity:

*High:* “You will be allowed to review the information collected by the organization from your social media profiles and you will be given the opportunity to dispute any decisions made based on that information.”

*Low:* “You will not be allowed to review the information collected by the organization from your social media profiles and you will not be given the opportunity to dispute any decisions made based on that information.”

Consistency of Administration:

*High:* “The organization has a process for collecting social media profile information that ensures the same type of information is collected from each applicant’s profile.”

*Low:* “The organization allows recruiters and managers to collect whatever social media profile information they want, so the type of information recorded from your social media profiles may not be the same as anyone else’s.”

## Appendix H

### Job Relatedness-Content:

*High:* “The organization will examine all of your social media profiles but only collect information that appears related to the job you are applying for.”

*Low:* “The organization will examine all of your social media profiles and collect any information it can find about you, even if it is not related to the job you are applying for.”

### Opportunity to Perform:

*High:* “Information will be collected from social media profiles that is related to the knowledge, skills, and abilities needed to perform the job through documents like your resume or a portfolio of your work.”

*Low:* “Information will be collected from social media profiles that is not related to the knowledge, skills, and abilities needed to perform the job. Documents like your resume or a work sample will not be collected.”

### Reconsideration Opportunity:

*High:* “You will be allowed to review the information collected by the organization from your social media profiles and you will be given the opportunity to dispute any decisions made based on that information.”

*Low:* “You will not be allowed to review the information collected by the organization from your social media profiles and you will not be given the opportunity to dispute any decisions made based on that information.”

### Consistency of Administration:

*High:* “The organization has a process for collecting social media profile information that ensures the same type of information is collected from each applicant’s profile.”

*Low:* “The organization allows recruiters and managers to collect whatever social media profile information they want, so the type of information recorded from your social media profiles may not be the same as anyone else’s.”

## VITA

**Rachel C. Callan**  
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### Education

- **M.S., Psychology** Old Dominion University. Graduation Date: May, 2012. Attendance Dates: August 2009 to May 2012.  
 Advisor: Dr. Richard Landers  
 Major Area of Study: Industrial/Organizational Psychology
- **B.S., Psychology**, Penn State University. Graduated With Distinction. Graduation Date: May 19<sup>th</sup>, 2007. Attendance Dates: August 2002 to May 2004, August 2005 to May 2007.  
 Option: Biological and Evolutionary Science
- **AAS, Fashion Design**, Fashion Institute of Technology, NYC. Graduation Date: May, 2005.  
 Attendance Dates: August 2004 to May 2005.  
 Specialization: Tailored Design.

### Work Experience

- **Senior Analyst, Data Science, Talent Analytics**; Liberty Mutual Insurance. September 2014-Present.
  - Assist in the development and implementation of predictive turnover models
  - Investigate the relationship between employee engagement and business metrics
  - Create framework for employee career pathing tool
  - Produce a variety of independent research projects, spanning employee training, engagement, turnover, and compensation initiatives
  - Develop training for adverse impact analysis utilized by HR business partners
  - Chair Professionalism and Ethics in Data Science work stream for Liberty Data Science Program Group
- **Personnel Research Psychology Intern**, Department of Defense. June 2013-August 2013.  
 Security clearance: TOP SECRET (TS)/Sensitive Compartmentalized Information (SCI)
  - Performed data analysis for measure development
  - Performed data analysis for validation purposes
  - Developed items for selection measures
  - Developed forms for selection system test batteries
  - Performed literature searches
  - Wrote portions of internal technical reports