Spring 2016

Do Psychological Contract Perceptions Mediate the Relationship between Procedural Fairness and Prosocial Behavioral Intentions under Conditions of Uncertainty Threat?

Kayla D. Finuf
Western Kentucky University, kayla.finuf469@topper.wku.edu

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DO PSYCHOLOGICAL CONTRACT PERCEPTIONS MEDIATE THE
RELATIONSHIP BETWEEN PROCEDURAL FAIRNESS AND PROSOCIAL
BEHAVIORAL INTENTIONS UNDER CONDITIONS OF UNCERTAINTY
THREAT?

A Thesis
Presented to
The Faculty of the Department of Psychological Sciences
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the Degree
Master of Science

By
Kayla D. Finuf

May 2016

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Date Recommended 4/12/16

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Aaron L. Wichman, Director of Thesis

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Elizabeth L. Shoenfelt

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Amber N. Schroeder

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Dean, Graduate Studies and Research   Date 4/22/16

This thesis is in dedication to my parents, Kim and David Finuf, for their continued support and encouragement throughout all my endeavors. Thank you for pushing me to be the best I can possible be and never giving up on me.

ACKNOWLEDGMENTS

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Kayla D. Finuf   May 2016   73 Pages

Directed by: Aaron L. Wichman, Elizabeth L. Shoenfelt, and Amber N. Schroeder

Department of Psychological Sciences   Western Kentucky University

Organizational justice and citizenship behaviors are important components that contribute to an organization's overall effectiveness. Additionally, when an employee enters into a new organization, they form psychological contracts with their employer that consists of elements such as fairness and consultation. This study aimed to integrate the literature on organizational justice, psychological contract, and organizational citizenship behaviors, as well as look at the possible effects uncertainty may play. Specifically, it was proposed that psychological contract would mediate the moderating effects of uncertainty and justice in predicting prosocial behavioral intentions. Results did not support the hypothesis. Interestingly, however, identification with the university seemed to play a role in the uncertainty by fairness interaction in predicting perceived contract fulfillment.

Introduction

The study of justice is not a new concept; in fact, the topic's philosophical roots can be traced back as far as Plato and Socrates. It is therefore not surprising that there is a rich body of research on justice and the consequences of just and unjust acts. In organizational settings, for example, justice has been found to increase the occurrence of extra-role behaviors which are not formally rewarded by an organization yet contribute to the organization's overall effectiveness, known as organizational citizenship behaviors (Jex & Britt, 2008; Moorman, 1991; Williams, Pitre, & Zainuba, 2002). Justice also reduces employee behaviors that are harmful to the organization, such as theft (Greenberg, 1990) and retaliatory behaviors (Skarlicki & Folger, 1997), and has been linked to organizational outcomes such as job satisfaction, commitment, and employee productivity/performance (Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Cropanzano, Bowen, & Gilliland, 2007; Viswesvaran & Ones, 2002). Justice can even soften the blow of layoffs, pay cuts, and can decrease turnover (Cropanzano et al., 2007; Greenberg, 1990). With the diverse consequences (in)justice may have on organizations, it is important to understand what exactly is meant by the term justice as a construct, and how the outcomes associated with it occur.

Overview of Justice

Justice, as defined by the Merriam-Webster Dictionary ("Justice," n.d.), is "the maintenance or administration of what is just especially by the impartial adjustment of conflicting claims or the assignment of merited rewards or punishment." Although the term justice implies formal legal and ethical rules associated more with the judicial arena, research on the topic in organizational settings has considered justice to be more

subjective perceptions of fairness. In other words, justice in the literature is defined by the subjective quality of what people perceive to be fair, not necessarily what is fair by an objective comparison standard (van den Bos & Lind, 2002). Even though justice and fairness differ in their objectivity, they are used interchangeably throughout the literature and within this manuscript because they tap into the same underlying concept of what is considered to be fair.

In the organizational literature, justice is often broken down into two separate, yet related, concepts. The first concept, distributive justice, is concerned with the distribution and allocation of outcomes. The other concept, procedural justice, is concerned with the process by which the outcomes are distributed and allocated. Recently, researchers (e.g., Colquitt et al., 2001; Williams et al., 2002) have suggested a third component of justice. Namely, this component focuses on the quality of the interactional aspect of justice and can further be broken down into two subcomponents. Interpersonal justice focuses on the way in which employees are treated by an authority or third party involved in the distribution and allocation of resources. Informational justice focuses on explanations provided to people as to the underlying rationale for the procedure used in the allocation of resources or why the outcomes were distributed in a certain fashion (Cropanzano et al., 2007; Jex & Britt, 2008). There has been debate in the literature that interactional justice is simply an extension of procedural justice and, therefore, should not be broken apart from research on procedural justice. Likewise, researchers studying procedural or distributive justice tend to focus on one form of justice at the expense of the other. In a meta-analysis of the organizational literature, Colquitt et al. (2001) examined the four concepts of justice used in the literature to determine the distinctness of each construct, or

if the distinctions are even warranted. Results showed procedural and distributive justice to be related ($r = .57$) but not so highly that they seem to be multiple measures of the same underlying construct. Similarly, interpersonal and informational justice also were related ($r = .66$) but, again, not so highly as to seem they are indicators of the same construct. Furthermore, procedure and interpersonal and informational justice, were as highly related ($r = .63$ and $r = .58$, respectively) as procedural and distributive justice were, suggesting that both forms of interactional justice are not indicators of the same construct as procedural justice and should be considered separate from procedural justice. Results from Colquitt and colleagues are congruent with a meta-analysis by Viswesvaran and Ones (2002). Viswesvaran and Ones focused on the procedural-distributive justice distinction and found an estimated population correlation between the two of .66. Again, these results indicate procedural and distributive justice to be related, yet not highly enough to be measuring the same underlying construct. Taken together, it would seem that although the four forms of justice are related to each other, they each may explain why different outcomes are associated with various acts of (in)justice.

Research examining the relationship between the four factors of justice with organizational outcomes has found substantial effects across a variety of methodologies and settings. For example, research on the extent to which employees engage in behaviors that are harmful to an organization can be lessened given the presence of justice by the organization. Specifically, Greenberg (1990) found that when given an adequate explanation for the reason behind pay cuts, employees were less likely to resign or leave their job and less likely to engage in theft of company property compared to when receiving an inadequate explanation. When informational justice was high, people

were less likely to engage in counterproductive or harmful work behaviors. Similarly, Skarlicki and Folger (1997) found a three-way interaction between distributive, procedural, and interactional justice. Specifically, the authors found that fair procedures seem to moderate an individual's retaliatory behaviors towards an organization when interactional and distributive justice are low; likewise, interactional justice seems to moderate an individual's retaliatory behaviors towards an organization when procedural and distributive justice are low. The authors concluded that procedural and interactional justice can function as substitutes for each other. In other words, the combination of unfair procedures with low perceptions of interactional justice seem to set the stage for retaliation by employees; however, the presence of either fair procedures or high interactional justice can soften the blow to employees regarding unfavorable outcomes and serve as a buffer against retaliation.

Research also has looked at the effects justice can have on positive organizational outcomes such as employee commitment, satisfaction, organizational citizenship behaviors, and productivity/performance. Both Moorman (1991) and Williams et al. (2002), for example, found that perceptions of interactional justice were more closely linked to organizational citizenship behaviors than was procedural justice or distributive justice; however, all three forms of justice were related to organizational citizenship behaviors. Meta-analytic reviews (e.g., Colquitt et al., 2001; Viswesvaran & Ones, 2002) of the literature have found procedural justice to have more positive effects on outcomes such as job satisfaction, trust, and performance than distributive or interactional justice. Interactional justice has been found to have more positive effects on outcomes such as evaluation of an authority (such as one's manager or employing organization) and

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organizational citizenship behaviors and is more negatively related to negative reactions by employees (i.e., higher levels of interactional justice decreased levels of negative reactions by employees) than distributive or procedural justice. Finally, distributive justice has been found to have more positive effects on outcome satisfaction and is more negatively related to withdrawal by employees (i.e., higher levels of distributive justice decreased levels of employee withdrawal) than procedural or interactional effects; interestingly, however, distributive and interactional justice seem to affect evaluations of a supervisor similarly (Colquitt et al., 2001; Viswesvaran & Ones, 2002).

At first glance it would seem that interactional justice perceptions may be more influential in the promotion of organizational citizenship behaviors. However, a survey of the research has yet to arrive at a definite answer. Some researchers posited interactional justice to be more closely related to occurrences of organizational citizenship behaviors (e.g., Williams et al., 2002), whereas others argue the importance procedural justice may have on the occurrence of organizational citizenship behaviors (e.g., Konovsky, 2000; Viswesvaran & Ones, 2002). The lack of consensus in the literature may be due to the fact that researchers often do not distinguish between different dimensions of organizational citizenship behaviors, but instead lump organizational citizenship behaviors into one global assessment. Theoretically, organizational citizenship behaviors have been described in five dimensions: (1) altruism, which is referred to as prosocial behavior and can consist of helping behaviors directed at one's coworkers, supervisor or organization; (2) sportsmanship, which typically is reflected by not complaining about minor problems or inconveniences; (3) courtesy, which represents behaviors that reflect basic consideration for others; (4) conscientiousness, which involves behaviors such as

arriving to work on time; and, (5) civic virtue, which is behaviors directed at the organization as a whole and can be seen at times such when one attends a company-sponsored event (Jex & Britt, 2008). Each dimension constitutes extra-role behaviors that are not formally rewarded (Jex & Britt, 2008).

Another reason for the lack of consensus regarding the importance of procedural fairness in predicting organizational citizenship behaviors may be due to possible mediators in the fairness-citizenship behavior link. For example, some researchers have suggested a mediated relationship between fairness perceptions and organizational citizenship behaviors through job satisfaction (e.g., Moorman, 1991), whereas others have suggested perceived organizational support to be involved (e.g., Moorman, Blakely, & Niehoff, 1998). Still others (e.g., Cantisano, Dominguez, & Depolo, 2008; Coyle-Shapiro, 2002) have looked at additional mediators and have suggested psychological contract may play a role in the relationship. Research on the content of one's psychological contract has suggested that fairness (defined as ensuring fairness of selection, appraisal, promotion, and termination procedures), consultation (defined as consulting and communicating with employees on matters which affect them), and justice (defined as fairness and consistency in the application of rules and disciplinary procedures) are all important obligations an organization has to provide employees (Herriot, Manning, & Kidd, 1997).

The purpose of this study was to integrate the literature involving procedural fairness, psychological contract, and organizational citizenship behaviors by testing the mediating effects of psychological contract perceptions between procedural fairness and prosocial behavioral intentions under conditions of uncertainty. The following sections

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focus on the literature on procedural justice, the role uncertainty plays in procedural fairness, and psychological contracts in greater depth. It also provides a rationale for the proposed mediating effects psychological contract may play in the procedural fairness-prosocial behavior link.

<div align="center">**Procedural Justice and the Fair Process Effect**</div>

Formation of Fairness Judgments

One prominent way researchers have explained the effects of procedural fairness and how procedural fairness judgments are formed draws from fairness heuristic theory (Cropanzano, Bryne, Bobocel, & Rupp, 2001). According to fairness heuristic theory, when individuals enter into a new environment or social context, they immediately start searching for information with which they can build fairness judgments. For example, individuals may be searching for information regarding whether they can trust an authority figure to not exploit or exclude them from a group (van den Bos, Wilke, & Lind, 1998) or what their personal value is to the group or organization (De Cremer & Blader, 2006; De Cremer, Brebels, & Sedikides, 2008; De Cremer et al., 2010; van Prooijen, van den Bos, & Wilke, 2004). Because outcome information is not readily available in these environments, individuals may look to the process by which outcomes are distributed to form fairness judgments. Once formed, these procedural fairness judgments are used as a heuristic for evaluating further events and subsequently influence information as it becomes available. The positive effect perceptions of procedural fairness have on reactions to subsequent events or outcomes has been called the *fair process effect*.

According to fairness heuristic theory, the fair process effect manifests due to variations in information that is available to people as they form fairness judgments. Research has examined this assumption by manipulating the order in which information, either procedural or outcome information, is presented to individuals. Either information regarding the process by which outcomes were distributed is presented prior to the outcome received, or information about the outcomes received is presented prior to the information about the process by which outcomes were distributed (van den Bos, Vermunt, & Wilke, 1997). Additionally, the timing of fairness information (e.g., receiving an initial act of justice followed by either acts of injustice or justice) has been manipulated, as opposed to having one form of information (such as procedural information) available before the other form of information (such as outcome information; Lind, Kray, & Thompson, 2001). This has provided a further test of the underlying components of the fair process effect.

Research indicates that the order in which information becomes available is critical to the formation of fairness judgments and to subsequent perceptions of the event (Lind et al., 2001; van den Bos, Vermunt, et al., 1997). When procedural information is presented before information about outcomes, people rely heavily on procedural information to form fairness judgments. Specifically, they perceive the procedure as more fair, are more satisfied with their outcomes, and are less likely to protest – regardless of outcome favorability – when the procedure used is fair compared to being unfair. Conversely, when outcome information is presented before information about the procedure, people rely less on procedural information and instead judge their received outcome based on its favorability; they perceive their outcome as more fair, are more

satisfied with their outcomes, and are less likely to protest – regardless of procedural fairness – when the outcome is favorable as opposed to unfavorable. Interestingly, the authors concluded that what is perceived as fair depends more on the fairness information one receives first that the information that one receives subsequently. In other words, procedural fairness has a greater impact when the outcome received is unfavorable as opposed to favorable, whereas a favorable outcome has a greater impact when the process is perceived as unfair compared to fair (van den Bos, Vermunt, et al., 1997).

Lind et al. (2001) extended these findings. By manipulating the timing of fairness experiences, the authors found that the earlier in a process unfairness is experienced, the more the perceived injustice influences future interpretations of the event. In general, when unfairness is experienced earlier in a decision-making process, people evaluate the process as less fair, even if the initial act of unfairness is followed by subsequent acts of fairness by the decision-maker. Conversely, when unfairness is experienced later in a decision-making process, people evaluate the process as more fair, even if their last experience with the decision maker is unfair. These findings are a crucial component in understanding how fairness judgments are formed; they suggest that when information about outcomes received is delayed, which is often the case, people look to other sources (such as the procedure used to allocate the outcome) to aid them in forming fairness judgments. However, if information about outcomes is known before information regarding how the outcome is distributed people tend to focus on the outcome itself. Similarly, if unfairness is experienced earlier in the process, then people may be influenced by the injustice and it may affect any subsequent events, even if the injustice is followed by a fair procedure.

The fair process effect has been one of the most replicated and robust effects in the justice literature. Findings indicate that when participants are allowed the opportunity to voice their opinion in the decision-making process, regardless whether they received a favorable outcome, they perceive the procedure as more fair and satisfying (van den Bos, Vermunt, et al., 1997). The effects found are not limited to laboratory studies (e.g., Bies & Shapiro, 1988; Lind et al., 2001; van den Bos, Vermunt, et al., 1997; van den Bos, Wilke, Lind, & Vermunt, 1998). They have been replicated in field experiments (e.g., De Cremer & Blader, 2006; De Cremer et al., 2010; Diekmann, Barsness, & Sondak, 2004; Thau, Aquino, & Wittek, 2007), and also have been documented in a variety of other situations (see "Evidence of Fair Process Effect" below for more detail). However, before discussing research findings involving the fair process effect, it is important to understand how procedural fairness is manipulated in the literature.

Procedural Fairness Manipulations

Voice procedures are generally the most accepted manipulation of procedural fairness in the justice literature, and produce robust effects. Voice procedures allow participants some input, and therefore some perceived control, in the decision-making process; participants are informed that a decision maker is either interested or not interested in hearing from participants about some decision that will affect the participants. However, voice procedures are not the only way to manipulate fairness. Researchers also have manipulated procedural fairness is through procedural accuracy, which manipulates whether the procedure used to allocate outcomes is accurate or inaccurate, that is it is based on complete or less complete information. This procedure

produces robust fair process effects, although it is relatively less common in the justice literature.

Voice procedures. Although voice procedures allow participants some input, and therefore some perceived control, in a decision-making process, a survey of the literature shows that there are two discrete forms of voice procedures: implicit and explicit (van den Bos, 1999; van den Bos & Lind, 2002). In both types of procedures, participants are either given or denied voice, but the manner in which this occurs varies.

In implicit voice procedures participants in the voice condition are informed that they possess the opportunity to voice their opinion during the decision-making process. Their input is solicited. Participants in the no-voice procedure are not informed of the opportunity to voice their opinion during the decision-making process, and are therefore unaware they even have an ability to provide input. As opposed to implicit voice procedures, in explicit voice manipulations both participants in the voice and no-voice condition are aware of the presence or absence of the opportunity to provide their input in the decision-making process. Those in the explicit voice condition are informed of their ability to provide their opinions and their input then is solicited. Participants in the no-voice condition, however, are explicitly informed that the decision maker is not interested in their input regarding the decision-making process. In summary participants in both implicit and explicit voice procedures are treated the same. However, participants in the no-voice condition are either unaware (implicit voice) or aware (explicit voice) of the voice denial.

Van den Bos (1999) is one of the few researchers to look at the implicit/explicit voice distinction. Participants were either assigned to an implicit no-voice, explicit no-

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voice, or voice procedure. Results indicated participants in the voice condition perceived the procedure as fairest and most satisfying; participants in the implicit no-voice procedure perceived the procedure as moderately fair and satisfying; participants in the explicit no-voice procedure perceived the procedure as least fair and satisfying. These findings suggest that explicitly informing participants that they will not be given the opportunity to provide their input in a decision-making process that will affect them produces the most adverse effects compared to when participants are either informed that they will be solicited for their input or do not know the opportunity to voice their opinion exists. Van den Bos (1999) and van den Bos and Lind (2002) argued that because participants in the implicit no-voice condition were not aware of their ability to voice their input in the decision-making process, they did not have direct information about the procedure and, therefore, found it difficult to assess and respond to the procedure. These participants had to look elsewhere for information about the procedure and found such information by looking at the outcome they received. Comparatively, those in the explicit voice and no-voice conditions had direct access to information regarding the fairness of the procedure and, for that reason, did not need to rely on information about the outcome received, compared to their implicit no-voice counterparts. In summary, although not many researchers have made the distinction between implicit or explicit voice procedures, research suggests that explicit voice denial procedures are judged as more averse and least fair compared to when voice is granted or when implicit no-voice procedures are used. Participants in explicit voice procedures have direct access to information about the process by which resources are allocated, and, thus, form their fairness judgments using this information.

Procedural accuracy manipulations. Procedural accuracy manipulations are less common in the justice literature, yet still produce robust fair process effects. One version of procedural accuracy manipulations asks participants to read a scenario describing a selection process for a job and to imagine that they are applying for the job. The selection process consists of nine assessments, and participants complete all nine assessments. Participants are then informed that either *all* of the nine assessments are graded (known as the accurate procedure) or that only *one* of the nine assessments will be graded (known as the inaccurate procedure); the grade they receive on the assessment(s) will influence the company's hiring decision. For example, using this paradigm, van den Bos, Vermunt, et al. (1997) found that participants perceived their outcome as more fair, and were more satisfied with their outcome, when the procedure used was accurate compared to inaccurate.

Evidence of Fair Process Effect

Regardless whether implicit or explicit procedures or procedural accuracy manipulations are used, research has documented the fair process effect in a variety of situations (De Cremer et al., 2010; van den Bos, 2001; van den Bos, Lind, Vermunt, & Wilke, 1997). One area in which the fair process effect has been found to play a role is when individuals do not know how to react to an authority figure responsible for outcome allocations. Van den Bos, Wilke, and Lind (1998) looked specifically at the role of trust in an authority figure. Based on fairness heuristic theory, the authors proposed that people often do not have information concerning whether they can trust an authority and are frequently uncertain about their relationship with these authority figures, for instance, whether they will be exploited or excluded by the authority, or how they should judge the

outcomes they receive from the authority. Therefore, people may look at fairness information present in outcome allocation procedures to interpret how they should react to the outcomes they received. Results from a series of experiments found that when information about the authority's trustworthiness was not available, participants judged their outcomes as more fair and were more satisfied with their outcome when they were granted, rather than denied, voice. However, when information about the authority's trustworthiness was available, either positive or negative (i.e., the authority can be trusted or cannot be trusted, respectively), participants based their outcome judgments less on the procedure used and more on the trustworthiness information. Specifically, the participants rated their outcome satisfaction and outcome fairness perceptions relatively the same regardless whether they were granted or denied voice. Additional research on the role of authorities in a decision-making process has found that people are less accepting of the authority and view the authority figure as less considerate and impolite when an unfair procedure is experienced earlier in the interaction (Lind et al., 2001).

Another area in which research on the fair process effect has focused is information present in reference points, such as social comparison information and individuals' expectations about outcomes. Results have consistently found that when information regarding others' outcomes (i.e., social comparison information) is available, individuals compare their own outcome to that of another's outcome to form their fairness judgments. This occurs regardless of if they were granted or denied voice; it holds true when the outcome received is better than, worse than, or equal to a comparison other's outcome (van den Bos, Lind, et al., 1997). Likewise, when people use expectations about an outcome they will receive as a reference point to judge their

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outcomes, they are more satisfied with their outcome and consider it more fair when they are granted rather than denied voice. This occurs regardless of whether their outcome received is better than or worse than they expected (van den Bos, Wilke, Lind, et al., 1998). However, when comparison information is not available, individuals do not have a reference point to aid them in forming fairness judgments and therefore look elsewhere for such information, namely the process by which the outcomes are distributed (van den Bos, Lind, et al., 1997; van den Bos, Wilke, Lind, et al., 1998). In other words, when people lack external information that can be used as a reference point to compare their outcomes to another's outcomes, they rely on information obtained through the process by which the outcomes were distributed to form fairness judgments regarding the outcome they received. Conversely, when information is provided that can be used as a reference point to compare their outcomes to another's outcomes, they rely more on the comparison information than the process by which the outcomes were distributed to form fairness judgments regarding the outcome they received.

The robustness of the fair process effect has been documented even when a justification claiming mitigating circumstances is provided by the decision maker (Bies & Shapiro, 1988). Justifications have previously been defined as the reasons why a decision maker made the resulting decision, and has been found to have independent effects on procedural fairness judgments when justification is provided. Interestingly, however, not many researchers have looked at the effects justification may have on procedural fairness interpretations. Research (e.g., Bies & Shapiro, 1988) suggests that participants judged the procedure as more fair when they were granted voice and also when justification for the decision was provided. The authors further found that procedure and justification

were unrelated, and independently predicted fairness judgments. This suggests the search for procedural information may continue even when justification is provided.

The fair process effect emerges both when people personally experience, and when they indirectly learn about, procedural justice violations. This "third person effect" had been found in a variety of studies (e.g., see Bies & Shapiro, 1988; van den Bos, 1999; van den Bos, Lind, et al., 1997; van den Bos, Vermunt, et al., 1997; van den Bos, Wilke, & Lind, 1998; van den Bos, Wilke, Lind, et al., 1998; van Prooijen et al., 2004). Van den Bos, Vermunt, et al. (1997), for example, documented the fair process effect when individuals did not directly experience the unfairness. Using a procedural accuracy manipulation, the authors had participants imagine they were applying for a job and were asked to read a scenario. The authors then manipulated the order in which participants received information about the procedure used and the outcome received. Results were consistent with typical first-person procedural fairness effects; when procedural information was available first individuals based their fairness judgments on the procedure used, regardless of outcome favorability; whereas when outcome information was presented first, individuals based their fairness judgments on outcome favorability, regardless of procedure. Furthermore, participants judge the procedure as more fair and are more satisfied with their outcomes when they are granted, rather than denied, voice

In summary, the fair process effect has been one of the most replicated effects in the justice literature, and research has documented the robustness of the effect in a variety of situations. This is true not only when people directly experience the unfairness, but also when they are asked to imagine experiencing the injustice. Moreover, the fair process effect has emerged when voice manipulations or procedural accuracy

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manipulations are used. It has been consistently found that when other information, such as comparison information of another's outcome or whether an authority can be trusted, is not available, people turn to other sources to aid them in the development of their fairness judgments. One prominent avenue people use is the information present in the fairness of the outcome allocation procedure. When forming fairness judgments, people often do not have access about the outcomes they will receive readily available; they often experience a long delay between the behaviors in which they engage in and the outcomes they will receive as a result (van den Bos, McGregor, & Martin, 2015). However, procedural information concerning the outcome allocation is generally readily available and often experienced prior to receiving the outcome. People focus on this information to form their fairness judgments which, in turn, influences their perceptions of subsequent events. Clearly, fairness matters a great deal to people, yet it is often not clear why fairness matters. Recently, researcher have begun addressing why fairness perceptions matter by looking at possible antecedents or conditions people experience which make them place more value on procedural fairness. One direction researchers have begun focusing on is the role uncertainty may play in the formation of procedural fairness judgments.

The Role of Uncertainty in Fairness Judgments

  Uncertainty and insecurity. Uncertainty has been defined as an aversive state that is associated with the perception that life lacks purpose, directions, and meaning. It also has been defined as a disruptive state that can block one's ability to make decisions and to act upon them (Sedikides, de Cremer, Hart, & Brebels, 2013). Most research involving uncertainty and its role in the formation of fairness judgments has been

conducted in the Netherlands, Turkey, and Germany, and researchers have recognized that Dutch, Turkish, and German words for uncertainty have connotations of insecurity, not "mere" uncertainty. Further, a study by McGregor, Prentice, and Nash (2009) supports the difference between insecurity and uncertainty primes. This study found that the effects of uncertainty's role in the formation of fairness judgments can be applied to English-speaking participants if an appropriate insecurity prime is used. McGregor et al. manipulated the language used to prime uncertainty in English-speaking participants; participants were asked to describe the emotions elicited when reading the word(s) "uncertainty," "insecurity," or "uncertainty about school," as well as asked to describe what they think will happen to them when they feel uncertain (or insecure or uncertain about school). Results indicated that the word "insecurity" and the words "uncertainty about school" had identical effects on the outcome variable whereas the word "uncertainty" had less effect on the outcome variable. As noted above, some researchers (e.g., van den Bos et al., 2015) have argued that the discrepancy in the interpretation of the word "uncertainty" versus "insecurity" by participants may be due to the fact that, for English-speaking participants, the word "uncertainty" may not evoke the same emotional reaction that manifests in the Dutch, Turkish, or German translation. Uncertainty in English implies simply informational uncertainty. "Insecurity," in contrast, is less ambiguous for English-speaking participants and can imply personal uncertainty about important goals, such as love or success. For this reason, the findings presented here dealing with uncertainty effects are best conceptualized as "insecurity effects." Due to convention in the literature, however, the term "uncertainty" will continue to be used in reviewing this research.

Uncertainty management model. The role uncertainty plays in the formation of fairness judgments has been referred to as the *uncertainty management model* (van den Bos & Lind, 2002). According to the uncertainty management model, fairness perceptions are important because fairness information can be used to either alleviate or remove completely the discomfort associated with the feeling of uncertainty; additionally, it has been argued that the management of uncertainty is a basic human motive that allows the individual to regain a sense of control and predictability in one's life. The uncertainty management model, together with fairness heuristic theory, suggests that people are able to use relevant fairness-related information as a mechanism to alleviate uncertainty that may be associated with ceding control to an authority figure or whether they will be exploited by, or excluded from, their group (Sedikides et al., 2013; van den Bos & Lind, 2002). Research employing the uncertainty management model and fairness heuristic theory has found support not only in laboratory settings (De Cremer & Blader, 2006; De Cremer et al., 2008; De Cremer & Sedikides, 2005), but also in field settings (De Cremer et al., 2010; Diekmann et al., 2004). For example, Diekmann et al. (2004) looked at the effects of uncertainty concerning performance standards in employees on job satisfaction in relation to fairness perceptions. Results indicated that when procedural fairness was low and uncertainty was high, employees experienced less job satisfaction compared to when procedural fairness and uncertainty were both low, and when procedural fairness was high regardless of level of uncertainty.

Research (e.g., De Cremer et al., 2008; van den Bos, 2001) combining the uncertainty management model and fairness heuristic theory in the laboratory has found substantial affective, behavioral, and cognitive effects when uncertainty is induced and

participants subsequently are granted or denied voice. Van den Bos (2001), for example, manipulated uncertainty salience and procedural fairness through voice procedures and found that when participants were asked to think about being uncertain and were subsequently granted voice in a decision-making process, they experienced the least negative affect towards their treatment compared to participants in the uncertainty salient-no-voice, uncertainty nonsalient-no-voice, and uncertainty nonsalient-voice conditions. Conversely, participants who were asked to think about being uncertain and were subsequently denied voice in a decision-making process experienced the most negative affect towards their treatment. Additionally, participants who were asked to think about being uncertain and were subsequently granted voice in a decision-making process experienced the least disappointment-related affect, the least anger-related affect, and the most positive affect compared to the other conditions. In contrast, participants who were asked to think about being uncertain and were subsequently denied voice in a decision-making process experienced the most anger-related affect and the least positive affect compared to the other conditions. Disappointment-related affect was identical in both no-voice conditions. Taken together, it can be argued fairness perceptions become critically important when people experience, or think about, uncertainty in their lives. Fairness perceptions, it would seem, can be used as a mechanism to alleviate the effects of feeling uncertain.

Research on the uncertainty management model has distinguished between self, general, and belongingness uncertainty and their successive roles in fairness perceptions. Self-uncertainty specifies that people use justice perceptions to reduce uncertainty about the self, and has been operationalized as self-esteem (i.e., overall evaluations of one's self

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and abilities), self-doubt (i.e., sense of disbelief and distrust in one's abilities or characteristics), and self-concept unclarity (i.e., the extent to which one's self-concept is clearly and confidently defined; De Cremer & Sedikides, 2005). De Cremer and Sedikides (2005) found that when operationalizing self-uncertainty as self-esteem, participants with unstable self-esteem judged a decision-making process as less fair and experienced less positive affect when denied rather than granted voice compared to stable self-esteem individuals; these patterns also held true when procedural fairness was manipulated using procedural accuracy. When operationalized as self-doubt, participants high in self-doubt experienced more negative affect and had less cooperation intentions when voice was denied, rather than granted, compared to those low in self-doubt. When operationalized as self-concept (un)clarity, participants with low self-concept clarity (i.e., self-concept unclarity) experienced more negative affect when denied rather than granted voice compared to those high in self-concept clarity (De Cremer & Sedikides, 2005). Across all these studies, individuals who were uncertain about themselves paid more attention to variations in procedural fairness information; when denied voice they judged the procedure as less fair, experienced more negative affect, and were less likely to cooperate on a later task compared to individuals who were certain about themselves. Conversely, when uncertain individuals were granted voice, they experienced similar levels of fairness perceptions, negative affect, and cooperation intentions as individuals certain about themselves reported.

Not only has research on the uncertainty management model been conducted in laboratory settings, but the effects also have been documented in field settings, organizational settings in particular. It is important to note that even though uncertainty

and procedural fairness are not directly manipulated in field settings, the effects of uncertainty still are reproduced, providing further testament to the robustness of the uncertainty management model and fair process effect. For example, De Cremer and Blader (2006) found that voice was more strongly related to organizational identification when employees were high in need to belong compared to low in need to belong. This may be due to the fact that employees with a high need to belong are perhaps more uncertain about their place in the group and gathered information regarding their worth to the group through voice procedures. Diekmann et al. (2004) found that when employees were uncertain, they were more satisfied with their job when their overall fairness perception of their supervisor was high compared to low. Furthermore, De Cremer et al. (2010) found that when employees were unsure about their standing in an organization, operationalized as organizational tenure, those with high uncertainty expressed lower organizational commitment, were less likely to engage in organizational citizenship behaviors, and had less positive customer performance across both fair and unfair outcomes when procedural fairness was low compared to high. This and other research shows that the uncertainty management model can be successfully applied to organizational settings. The interaction between uncertainty and procedural fairness appears to moderate organizational outcomes such as commitment, job satisfaction, and organizational citizenship behavior intentions.

In summary, evidence for the application of the uncertainty management model has been found in both laboratory settings as well as in organizational settings. Outcomes associated with the uncertainty by procedural fairness interaction include affective responses, such as more anger-related affect, organizational commitment, and job

satisfaction; behavioral responses, such as cooperation intention and organizational citizenship behaviors; and cognitive responses, such as fairness judgments and job satisfaction. Although the uncertainty management model produces robust effects, it is still unclear why these reactions and responses occur. This study suggests an additional mediating variable that has not been included in the uncertainty management model and fair process effect literature, namely the role psychological contract may play in the overall relationship between uncertainty, variations in fairness, and outcomes.

A psychological contract, discussed below, is defined as an implied exchange relationship between two parties (such as the employee and the organization) and is based on the principles of mutuality and reciprocity (Muchinsky, 2012). Some research has linked justice and organizational citizenship behaviors (and anticitizenship behaviors) through possible mediators such as job satisfaction and psychological contract (Kickul, Neuman, Parker, & Finkl, 2001). However, research has not looked at the mediating role psychological contract may play in the fairness-citizenship link in the presence of uncertainty. Furthermore, research has not look at this link when specifically focusing on procedural fairness and altruism. The rationale for the proposed mediated relationship is based on a survey of the overall findings in both the justice and psychological contract literature. Considering their face validity, outcomes associated with the psychological contract construct appear to map nicely onto organizational citizenship behaviors, and they are congruent with outcomes associated with justice. For example, research (Herriot et al., 1997; Kickul et al., 2001) suggests that when someone experiences injustice, such as a lack of consultation or fairness (e.g., lack of procedural fairness), they perceive this act by the organization as a breach in their psychological contract. They then are more

likely to withdraw extra-role behaviors (e.g., helping coworkers) and/or engage in more harmful organizational behaviors. Conversely, Konovsky and Pugh (1994) found that procedural fairness was a positive predictor of organizational citizenship behaviors, such that higher levels of procedural fairness by an employee's supervisor was related to more acts of organizational citizenship behaviors displayed by the employee. Therefore, before explaining the study methods, it is critical to understand what exactly is included in one's psychological contract and why various outcomes may occur.

<h3 style="text-align:center">Psychological Contract</h3>

Psychological contract is defined as an implied exchange between two parties, such as between an employee and their employer, and is based on the principles of mutuality (shared beliefs about specific terms of the exchange relationship) and reciprocity (commitment each party has to the other; Muchinsky, 2012). In addition to mutuality and reciprocity, Rousseau (2001) argued that schemata are the foundation of the psychological contract. Schemata are cognitive organizations or mental models of conceptually related elements, and can be more or less conscious beliefs that have both verbal and non-verbal elements. Once formed, schemata are maintained, tend to resist change once completed, and any following information tends to be interpreted through the lens of the existing schema. As such, schemata serve an interpretive and informational function that enable individuals to fill in blanks created from missing or incomplete data and predict future events, thereby helping individuals reduce the uncertainty imposed by unpredictable circumstances of their environment. This function is similar to the fair process effect and uncertainty management model in that information gathered through the process by which outcomes are distributed can reduce or completely

alleviate uncertainty experiences and further influence interpretations of subsequent events. In other words, when uncertain, initial acts experienced tend to hold the most weight and influence interpretations of successive actions (De Vos, Buyens, & Schalk, 2003; Lind et al., 2001; Rousseau, 2001).

Research has looked at the development of psychological contracts in employees and has found that there are two main events involved in the formation of psychological contracts: developments during recruitment and developments during socialization. During recruitment, organizational agents may promise promotions or job security in order to attract the most qualified candidates. Whether intentional or not, these promises become expectations and, if not met, can result in perceived psychological contract breaches or violations by the employee (Robinson, Kraatz, & Rousseau, 1994; Robinson & Morrison, 2000). Additionally, formal socialization of new employees into the organization may impact the development of psychological contract perceptions. When entering a new organization, new employees often lack information about the terms of their employment relationship. As such, psychological contracts schemata formed during the socialization processes, processes that are aimed at indoctrinating employees into the organizational about the culture and beliefs, can be used to actively interpret the initial experiences of the newcomer as a basis for predicting future events (De Vos et al., 2003). Robinson and Morrison (2000) found that formal socialization was negatively related to perceived psychological contract breach, in that perceived contract breach was less likely to occur when employees experienced formal socialization.

Most research (De Vos et al., 2003; Robinson et al., 1994) tends to focus on the formation of psychological contracts and their outcomes, but few have examined the

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various components that are perceived by employees to be owed to them by their employers. Herriot et al. (1997) looked at the contents of one's psychological contract and found employees perceived 12 obligations their employer owed their employees. Of the 12 obligations, fairness, consultation, and justice were all recognized as important factors. Fairness included ensuring fairness in selection, appraisal, promotion, and termination procedures. Consultation included consulting and communicating with employees on matters that affect them. Justice included fairness and consistency in the application of rules and disciplinary procedures. In other words, the three components of fairness, consultation, and justice were concerned with aspects of procedural fairness, such as having a voice in a decision-making process and the application of consistent rule and procedures (Greenberg, 1987; Herriot et al., 1997). In congruence with Herriot et al. (1997), Rousseau (1990) found that in exchange for financial rewards from their employer, new hires feel they have an obligation to perform extra-role behaviors.

In summary, psychological contracts are informal, typically unwritten, rules and beliefs that are held between two parties in an exchange relationship. They are promise-based and generally exist over unspecified periods of time. Psychological contracts can be placed on a continuum from transactional to relational contracts. On the one hand, transactional contracts (also known as economic exchanges; Konovsky & Pugh, 1994) are characterized by shorter time frames and generally involve the exchange of services for financial incentives; individuals holding transactional contracts with other parties tend to be alienated from others and engage in antisocial behaviors, such as threats or negligence, when their contract is breached. On the other hand, relational contracts (also known as social exchanges; Konovsky & Pugh, 1994) are characterized by longer time

frames with more diffuse obligations; individuals holding relational contracts with other parties tend to experience high commitment and engage in prosocial behaviors, such as altruism or courtesy, when their contracts are fulfilled (Muchinsky, 2012).

Integrating Social Exchange Theory, Justice, and Outcomes

In order to explain outcomes associated with forms of justice and psychological contracts, researchers have focused on social exchange theory. Similar to the elements of a relational psychological contract, social exchange theory suggests that relationships between two parties are based on expectations regarding some future return for contributions made now and relies on individuals trusting that the other party will fairly discharge their obligations in the future. Research integrating justice and social exchange theory suggests differential effects on outcomes with regards to the form of justice. Several studies have found procedural justice to be a significant predictor of organizational citizenship behaviors directed at the organization as a whole; furthermore, this relationship is mediated by aspects of social exchange relationships, such as trust in upper management and perceived organizational support (Cropanzano, Prehar, & Chen, 2002; Konovsky & Pugh, 1994; Masterson, Lewis, Goldman, & Taylor, 2000). Additionally, Rupp and Cropanzano (2002) found that supervisor-based exchange relationships, as opposed to organization-based exchange relationships, were a significant predictor of organizational citizenship behaviors directed at both the supervisor and the organization as a whole. In contrast, research has found interactional justice and organizational citizenship behaviors directed at supervisors to be mediated by the quality of the relationship between employees and their supervisors (leader-member exchanges; Cropanzano et al., 2002; Masterson et al., 2000; Rupp & Cropanzano, 2002). However,

when looking at overall psychological contract fulfillment, research has found fulfillment to be to significantly related to organizational citizenship behaviors directed at both the organization and individuals (Turnley, Bolino, Lester, & Bloodgood, 2003).

The above research links forms of justice with positive outcomes using social exchange theory. When procedural justice is high, individuals view this as fulfillment of their psychological contract and are more likely to engage in prosocial behaviors directed at the organization. However, negative outcomes emerge when psychological contracts are breached or violated. Morrison and Robinson (1997) argued psychological contract breach and psychological contract violations activates two separate processes. Psychological contract breaches are more congruent with cognitions that one's organization has failed to meet obligations, whereas violations reflect affective and emotional states that follow from the belief that an organization has failed to meet their end of the psychological contract (Morrison & Robinson, 1997). In both instances, the perceived failure by the organization may come from two sources: reneging and incongruence. Reneging occurs when the organization recognizes that an obligation exists but knowingly fails to meet the obligation. Incongruence, in opposition, occurs when the employee and organization have different understandings about whether an obligation even exists or about the nature of the obligation. This failure may be due to different schema held by both parties or because one's supervisor is unaware of promises made by others in the organization during the recruitment process (Morrison & Robinson, 1997; Robinson & Morrison, 2000). The degree to which an employee perceives a breach or violation in one's psychological contract depends on the salience of the discrepancy and the vigilance of the employee, or the monitoring of how well an organization is doing

in meeting their obligations. Interesting, and in congruence with the proposed mediating effects of psychological contract in this study, being in a state of uncertainty may lead individuals to be more vigilant in detecting discrepancies regarding unmet obligations by the organization (Morrison & Robinson, 1997).

Outcomes associated with a breach or violation in one's psychological contract have been found to have adverse effects, regardless of why the breach or violation occurred. Lester, Turnley, Bloodgood, and Bolino (2002) found that greater instances of psychological contract breach were associated with less commitment reported by employees. Kickul et al. (2001) found psychological contract breach to be significantly related to anticitizenship behaviors. When integrating forms of justice into psychological contract breach, negative outcomes, such as the occurrence of anticitizenship behaviors and retaliatory behaviors, are more likely to occur when both aspects of procedural and interactional justice are low. However, being high in one aspect of justice (either procedural or interactional) can help alleviate the effects of perceived breach (Kickul et al., 2001; Skarlicki & Folger, 1997). Additionally, when under fair conditions (i.e., procedural fairness is high), both positive and negative attributions as to why the breach occurred were not significantly different in predicting felt violation. In contract, when under unfair conditions (i.e., procedural fairness is low), negative attributions as to why the breach occurred were significantly different than positive attributions in predicting felt violation, particularly when attributions were seen as reneging (Robinson & Morrison, 2000). In sum, research has found procedural justice to be related to perceived psychological contract breach and occurrences of organizational citizenship behaviors. Furthermore, uncertainty may magnify this relationship such that when uncertainty is

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high, individuals may perceive a denial of voice as a breach in their psychological contract and, consequentially, reduce their organizational citizenship behaviors. However, when uncertainty is high, individuals may perceive the process as more fair when they were granted voice and, subsequently, be more likely to engage in organizational citizenship behaviors.

The Current Study

Taken together, research has linked justice and organizational citizenship behaviors through the mediation of psychological contract fulfillment. Although the mediating effects of psychological contract on the justice-organizational citizenship behavior link has been established in the literature, the role uncertainty may play in this relationship has yet to be tested. Specifically, research has not looked at the role of uncertainty with regard to procedural justice and the prosocial behavioral component of organizational citizenship behaviors. On the surface, outcomes associated with the psychological contract construct appear to map nicely onto organizational citizenship behaviors, and they are congruent with outcomes associated with the fair process effect and uncertainty management model. This study tested the mediating effects of psychological contract perceptions between procedural fairness and prosocial behavioral intentions under conditions of uncertainty. The rationale for the proposed mediated relationship is based on a survey of the overall findings in both the justice and psychological contract literatures, which were described above. Besides integrating the literature, this study aimed to replicate the traditional van den Bos (2001) manipulation of uncertainty using English-speaking participants, as the original manipulation was conducted primarily in the Netherlands, Turkey, or Germany. To activate feelings of

uncertainty, participants were asked to write about either uncertainty or a neural activity (e.g., watching TV). Participants described both what feelings were associated with each activity and what they thought physically happened to them respectively. Based on previous work, the following hypotheses were formed:

Hypothesis 1: Uncertainty will interact with justice to predict prosocial intentions, such that it amplifies the negative effects of justice violations on these intentions (see Figure 1).

Hypothesis 2: Uncertainty will interact with psychological contract fulfillment perceptions to predict prosocial intentions, such that it amplifies the negative effects of a psychological contract fulfillment on these intentions (see Figure 2).

Hypothesis 3: Psychological contract fulfillment perceptions will mediate the effects of the uncertainty by justice interaction on prosocial behavioral intentions (see Figure 3).
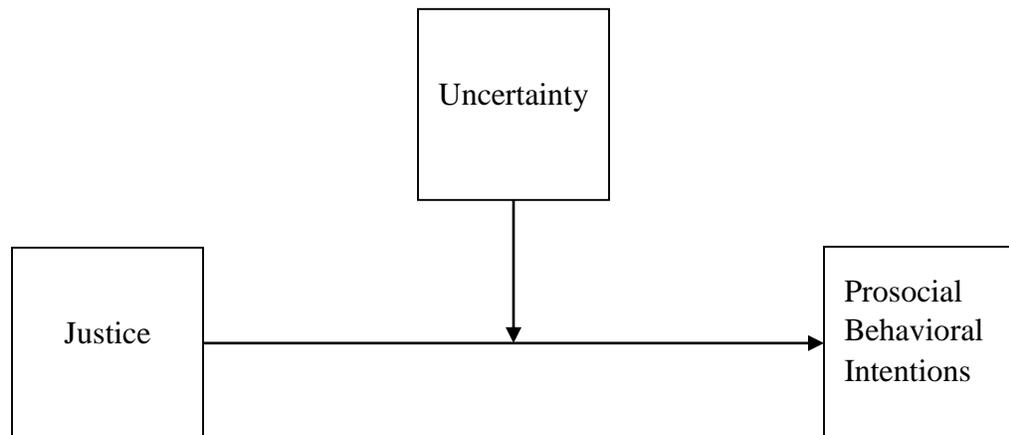

Figure 1. Hypothesis 1 depicted. Proposed uncertainty by justice interaction to predict prosocial behavioral intentions.
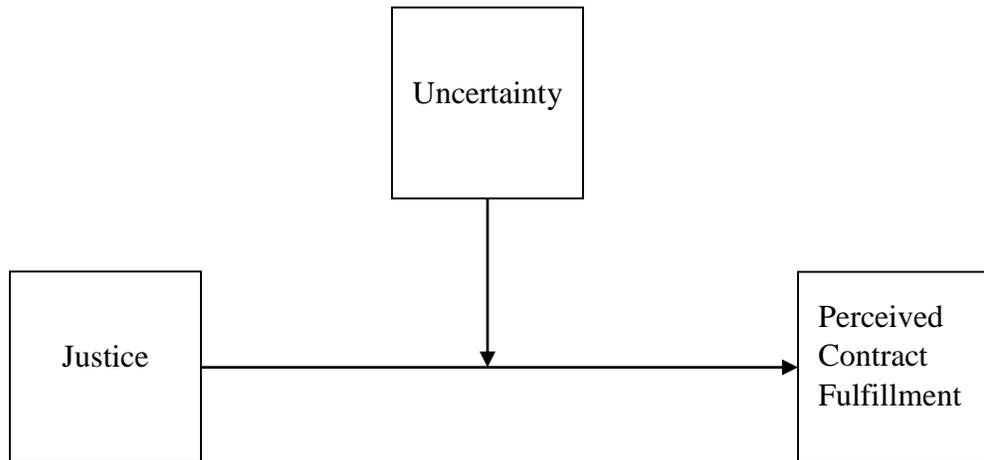
Figure 2. Hypothesis 2 depicted. Proposed uncertainty by justice interaction to predict perceived contract fulfillment.
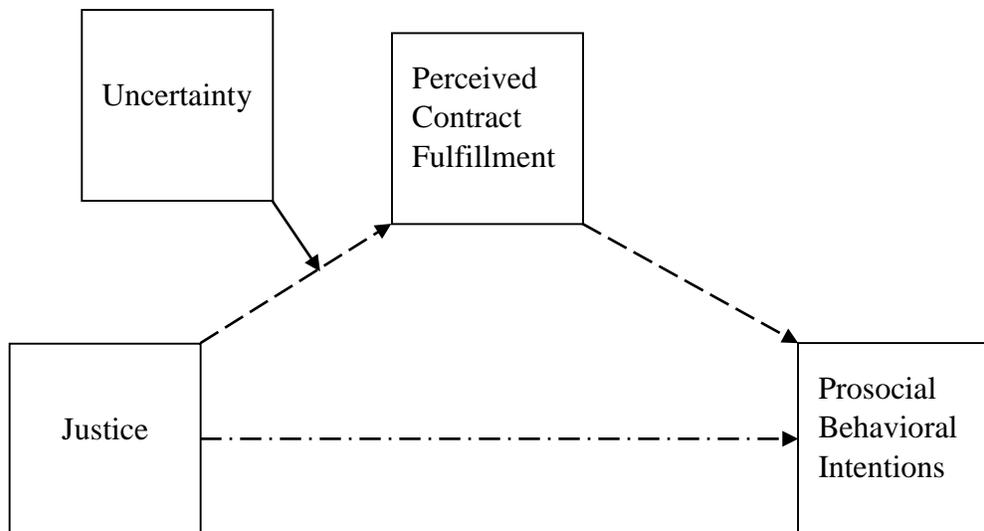

Figure 3. Hypothesis 3 depicted. Proposed mediation of perceived contract fulfillment on the effects of the uncertainty by justice interaction in predicting prosocial behavioral intentions. Solid line indicates moderation; dashed line indicate mediation; and, dotted and dashed line indicate direct effect.

Another area in which uncertainty threat can be aroused is public speaking. In addition to the traditional van den Bos manipulation, this study will explore the effects of inducing uncertainty threat by informing participants they have the potential to be selected to give a presentation in front of a large group of their peers (i.e., a presentation apprehension threat). No formal hypotheses were formed for this condition due to the exploratory nature of the proposed induction. As such, the following research question was devised:

Research Question: Will presentation apprehension threat have similar effects as the traditional van den Bos manipulation?

Method

Participants

Participants were undergraduate students at Western Kentucky University who were recruited to participate in the study via Western Kentucky University Study Board. Three hundred and five participants completed the study. However, 77 participants were removed from the data because they either did not consent to the study, did not complete the entire study, indicated they did not want their data to be used, or were in the same uncertainty manipulation in another, independent, study that was completed prior to the completion of the study reported here. Once these exclusions were made, the final sample was 228 participants (i.e., 170 females and 58 males). The average age of participants was 20.21 years ($SD = 4.125$). Eighty-five percent (85%) identified as Caucasian/White, 10% identified as Black/African American, and a combined 5% identified as either Hispanic/Latino, Native American, or Other. No participant identified themselves as Asian/Pacific Islander. Fifty-four percent (54%) of participants were Freshman, 21%

were Sophomores, 15.8% were Juniors, 8% were Seniors, and 1% were Other. Participants received credit for participating in the study, which could be used to fulfill specific course research requirements.[1]

Design

A 3 (uncertainty: salient vs nonsalient vs presentation apprehension) X 2 (fairness: voice vs no-voice) between-subjects factorial design was used. Manipulation of the independent variables followed the work of previous research in the uncertainty management literature, as described below. First, participants were asked to provide demographic data (e.g., age, school classification, sex, ethnicity, etc.) and were subsequently asked to complete scales measuring the control variables. Next, participants were asked to complete the uncertainty manipulation. Following this, participants were asked to read an article pertaining to university policies and changes to testing procedures. They learned that university officials were either interested or not interested in receiving the participant's input regarding the changes. Participants were randomly assigned to the uncertainty induction and fairness manipulations. Following the manipulation, participants were asked to complete a survey including: (1) a psychological contract violation measurement and (2) prosocial intentions towards other students as well as towards faculty, staff, or other university employees. Following the completion of the materials, participants were thanked and thoroughly debriefed before leaving the experiment.

Uncertainty manipulation. The uncertainty manipulation followed van den Bos' manipulation of uncertainty, and specifically was modeled after the work of McGregor et

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[1] Percentages may not sum to 100% due to rounding.

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al. (2009) and van den Bos et al. (2015). Participants were asked to record their responses to two questions. The original uncertainty manipulation asked participants to think about the emotions that "being insecure about yourself" induced. However, the focus of this study was on uncertainty in general, not on self-uncertainty. Consequentially, the words "about yourself" were omitted. The insecurity salient condition read, specifically, as follows:

1. Please briefly describe the emotions that the thought of feeling insecure arouses in you.

2. Please write down, as specifically as you can, what you think will happen to you physically as you feel insecure.

The insecurity nonsalient condition was administered in a similar format with the exception of having participants recall the neutral activity of watching TV (van den Bos, 2001). Specifically, the insecurity nonsalient condition read as follows:

1. Please briefly describe the emotions that the thought of you watching TV arouses in you.

2. Please write down, as specifically as you can, what you think physically will happen to you as you watch TV.

The presentation apprehension threat condition informed participants that, following the completion of the study, half of the participants would be randomly selected to make a presentation about topics in psychology. Specifically, the manipulation read as follows:

Now that you have agreed to participate, we need to inform you that we are randomly selecting ½ (50%) of all participants to make a presentation about a topic in psychology to a Psych 100 class. This means that you will have a 50%

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chance of having to present. Participants who are randomly chosen must present

this information within 3 days of the experiment participation. Your chances of

being required to present is 50:50. You will be informed whether you need to

present when you exit this study.

Because previous research (e.g., Lind et al., 2001) has documented order effects in the

formation of fairness judgments, participants who completed the presentation

apprehension threat condition were not be asked to write about their emotions and what

they believed would physically happen to them during the presentation. This was aimed

at reducing an unintentional perception by the participant that they were receiving a

"voice" regarding their presentation, which could alter or nullify the effects of the actual

fairness manipulation. Instead, participants in the presentation apprehension threat

condition were asked to indicate how difficult or easy they thought it would be for them

if they were chosen to give a presentation; responses were scored on a six-point Likert-

type scale, ranging from 1 (*Very Easy*) to 6 (*Very Difficult*).

Fairness manipulation. Following the insecurity manipulation, participants were

asked to read a short article where they learned that the university was interested in

implementing senior comprehensive examinations as a requisite for graduation.

Participants were informed of the nature of the senior comprehensive examinations and

then presented with an argument, or justification, supporting the implementation of senior

examinations. Justifications have previously been defined as the reasons why a decision

maker made the resulting decision, and has been found to have independent effects on

procedural fairness judgments when justification is provided (Bies & Shapiro, 1988).

Bies and Shapiro found that when justifications claiming mitigating circumstances, that

is, circumstances out of the organization's control, were provided, participants judged the process as more fair compared to when justification was not provided, regardless of whether they received a voice and whether the outcome was unfavorable to them. The justification used within this study contained a weak argument – defined as messages that should elicit unfavorable thoughts – in support of implementing the new testing procedure. Wording containing a weak argument for the senior comprehensive examinations was adapted from Petty and Cacioppo (1986). Specifically, participants read the following script:

> You may have heard that university officials have been discussing implementing senior exams here at Western Kentucky University. The exams will be comprehensive and questions will cover all course material in the student's major as well as contain a few questions covering the general education courses offered here on campus; the comprehensive exams will be designed to assess the knowledge acquisition for every class the student had been enrolled in during the undergraduate career at Western Kentucky University. Students will be required to pass the comprehensive exams with at least a score of 80% in order to graduate and receive their diploma. University officials intend to implement senior comprehensive exams because a member of administration has stated publicly that his brother had to take a comprehensive exam while in college and now he is manager of a large restaurant. He indicated that he realized the value of the exams since their father was a migrant worker who didn't even finish high school. He also indicated that the university has received several letters from parents in support of the exams. In fact, 4 of the 6 parents who wrote in thought that the

exams were an excellent idea. Also, the prestigious National Accrediting Board of Higher Education seeks input from parents as well as students, faculty, and administrators when evaluating a university. Since most parents contribute financially to their child's education and also, favor the exams, the university should institute them. This would show that the university is willing to listen to and follow the parents' wishes over those of students and faculty who may simply fear the work involved in comprehensive exams. If passed, university officials are planning to implement senior comprehensive exams in the 2017-2018 school year.

Immediately following the article, procedural fairness was manipulated. The manipulation was similar to previous work (e.g., De Cremer et al., 2008; De Cremer & Sedikides, 2005; van den Bos, 2001; van den Bos & Lind, 2002) and used one of the most prevalent procedural fairness manipulations: voice. In voice manipulations, participants are either given the opportunity to voice their opinion in a decision-making process or are not given the opportunity to voice their opinion. Based on previous research (van den Bos, 1999), an explicit voice procedure was employed because this historically has produced the strongest effects on procedural fairness judgments. In explicit voice procedures, participants in both the voice and no-voice conditions are aware of the opportunity to voice their opinion and are subsequently informed the decision maker is or is not interested in their input, respectively. The explicit voice manipulation was used as described below.

In the voice condition, participants learned that the university was interested in their input regarding implementing senior comprehensive examinations as a requisite for

graduation. Participants in the voice condition were asked and allowed to express their thoughts on the proposed testing procedure. Participants in the explicit voice condition read the following:

> At this time, university officials are interested in the opinions of students regarding senior comprehensive exams as a requirement for graduation.
>
> Therefore, you will be asked to provide your input about the exams

Participants were provided space and allowed to input their opinions following the manipulation.

In the no-voice condition, however, participants learned that the university was not interested in their input regarding implementing senior comprehensive examinations as a requisite for graduation. Participants in the no-voice condition were not asked or allowed to express their thoughts on the proposed testing procedure. Participants in the explicit no-voice condition read the following:

> At this time, university officials are not interested in the opinions of students regarding senior comprehensive exams as a requirement for graduation.
>
> Therefore, you will not be asked to provide your input about the exams.

Instead of providing participants in this condition with space to input their opinion, these participants proceeded directly to the next section of the experiment following the manipulation.

Psychological contract fulfillment. The Spies et al. (2010) measure of psychological contract violation was used in the next section of the experiment. The scale, consisting of 23 items, was developed from existing literature on psychological contract violations and originally were created to reflect the psychological contract

between pharmacy students and their university. Factor analysis results of the Spies et al. measure have indicated that there are seven dimensions of psychological contract violations, including: (1) Faculty; (2) Futuristic; (3) Student Development, (4) Course and Curricular Content; (5) Learning Opportunities; (6) Involvement; and, (7) Facilities. Furthermore, reliability analyses were conducted and resulted in Cronbach's alpha of $\alpha =$ .91 for the total scale and ranged from $\alpha = .59$ to $\alpha = .84$ for each subscale, suggesting high reliability for the total scale and moderate to high reliability for the subscales.

For this study, three items were deleted and nine were adapted to reflect the broader nature of the university atmosphere as opposed to a focus on one specific major/degree. The resulting modified scale consisted of 20 items, which can be found in Appendix A, along with their respective factors. For example, an item in the original scale is: "Potential to participate in School of Pharmacy committees." The edited version of this item is: "Potential to participate in WKU committees and/or clubs (e.g., Student Government Association)." Additionally, the original instructions asked participants to indicate the extent to which they felt they had received the items from their school compared to what they were promised. For this study, which is consistent with the literature on psychological contract perceptions, the instructions asked participants to indicate to what extent they expect to have access to or would receive the items from faculty, staff, or other employees at Western Kentucky University. Items were scored on a Likert-type scale, ranging from 1 (*Never*) to 5 (*Always*). An internal consistency reliability analysis was performed on the scale in this study, which indicated high internal consistency ($\alpha = .930$).

Prosocial behavioral intentions. The Self-Report Altruism Scale (SRA-S; Rushston, Chrisjohn, & Fekken, 1981), originally developed to measure previous prosocial behavior, was used to measure prosocial intentions. The SRA-S consists of 15 items, and work by Rushston et al. (1981) shows Cronbach's alpha estimates ranging from $\alpha = .78$ to $\alpha = .87$, suggesting moderate to high internal consistency.

For this study, the SRA-S was modified to reflect future intentions. Additionally, the scale was adapted to focus on intentions towards other Western Kentucky University students as well as members of faculty, staff, and/or other university employees at Western Kentucky University, respectively. It was predicted that scores on the student-focused and the university member-focused scales would differ. For example, McNeely and Meglino (1994) found that when the intended target is other individuals, not the organization, prosocial behavior was related to concern for others and empathy. In contrast, when the intended target is the organization as a whole, prosocial behavior is contingent upon procedural fairness. In this case, students might empathize with other students as individuals. Scores on the student-focused scale were thus not expected to differ across condition. However, scores on the university member-focused scales were expected to differ, particularly when participants were in the no-voice condition with an uncertainty induction.

The original instructions asked participants to indicate the frequency with which they have engaged in the actions listed. For this study, the instructions were modified to ask participants to indicate the extent to which they would be likely to do each of the behaviors described either other students or members of faculty, staff, or others employed at Western Kentucky University. An example of an original item is: "I have helped push

a stranger's car out of the snow." The edited version of this item is: "Help push another

student's car/a member of faculty, staff, or other WKU employee's car out of the snow,"

respectively for the student-focused and faculty-focused subscales. Items for the

corresponding modified scales can be found in Appendix B and C. Items were scored on

a Likert-type scale, ranging from 1 (*Very Unlikely*) to 5 (*Very Likely*). An internal

consistency reliability analysis was performed on the scale in this study. This analysis

showed an alpha (α) of .831 for the 15-item student-focused scale and an alpha (α) of

.858 for the 14-item faculty-focused scale.

Control and ancillary variables. The following includes variables that were

used as control or ancillary variables within this study, as well as any supporting rationale

for their inclusion.

Demographics. According to previous research, gender, ethnicity, age, and tenure

(defined as school classification within this study) can be related to both perceptions of

fairness and psychological contract violations (Cropanzano et al., 2002; Herriot et al.,

1997; Turnley et al., 2003). Therefore, these variables were measured and controlled.

Group identification. Research (e.g., Lind et al., 2001; van Prooijen et al., 2004)

suggests that when group identification is high, people rate the process as least fair when

unfairness is experienced earlier rather than later in an interaction with the group's

authority figure, as compared to when group identity is low (Lind et al., 2001). Likewise,

research has found that when group inclusion is high, participants are more satisfied with

the procedure and judge the procedure as more fair when they are granted as opposed to

denied voice. Therefore, group identification, as defined as identification with Western

Kentucky University, was assessed using four items from the Western Kentucky

University Identification Scale (as based on Luhtanen & Crocker, 1992; WKU-S; Appendix D). Items were scored on a Likert-type scale, ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). An internal consistency reliability analysis indicated a high internal consistency (α = .951).

   Self-esteem. Previous work (e.g., Sedikides et al., 2013; van den Bos & Lind, 2002) has suggested self-esteem to be conceptually related to uncertainty but not so related that they comprise the same underlying construct. Therefore, self-esteem was measured and controlled using the Rosenberg (1965) Self-Esteem Scale (RSE; see Appendix E), consisting of 10 items and was scored on a Likert-type scale, ranging from 1 (*Strongly Agree*) to 4 (*Strongly Disagree*). Sinclair et al. (2010) assessed the psychometric properties of the RSE and found a Cronbach coefficient α of .91, suggesting high internal consistency of the scale. Internal consistency reliability analysis in this study found good internal consistency (α = .882).

   Attitudes towards senior comprehensive examination. Following the procedural fairness manipulation, participants were asked about their attitudes towards implementing the senior comprehensive examinations. Attitudes were assessed by asking participants to respond to five questions (see Appendix F). Scores were on a semantic differential-type scale; however, scale anchors varied. For example, one prompt asked participants to rate how certain they were about their attitude towards senior comprehensive exams, and was scored on a 1 (*Very Uncertain*) to 7 (*Very Certain*) scale, with five points separating the anchors. It was thought that students who believed they would do well on senior comprehensive examinations might not perceive the manipulation as intended, and, therefore, attitudes towards the implementation were measured and controlled. An

internal consistency reliability analysis was performed, indicating an acceptable internal consistency ($\alpha = .735$).

<div align="center">

Results

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Analyses reported below include: (1) a summary of the computed scales; (2) independent analyses of the moderation of fairness with respect to both the uncertainty-prosocial behavioral intentions link and the uncertainty-perceived contract fulfillment link; and, (3) mediational analysis the effect of perceived contract fulfillment on the relationship between fairness and prosocial intentions under conditions of uncertainty. Post-hoc exploratory analyses also were performed to look at the effects of identification with the university on the uncertainty-prosocial behavioral intentions link and the uncertainty-perceived contract fulfillment link. Analyses were performed using a combination SPSS Statistical Software and the R Statistical Suite.

Summary of Computed Scales

The means, standard deviations, and intercorrelations across all conditions for the WKU-S, RSE, Perceived Contract Fulfillment Scale (PCF), and the SRA-S for both student and faculty are reported in Table 1 below. Scores were averaged for each scale and were based on all 228 participants, as reported below. As can be seen in Table 1, relative to the scale end-points, participants in this study reported rather high identification with Western Kentucky University, moderate levels of self-esteem, high levels of perceived psychological contract fulfillment, and a similar high likelihood to engage in prosocial behaviors towards both students and faculty. Additionally, with the exception of the correlation between WKU-S and both versions of the SRA-S, all the scale totals had significant positive correlations with each other at the $p < .05$ or .01 level.

When examining the distribution of scores on the WKU-S, it was discovered that the scores were negatively skewed (skew = -1.92, *SE* of skew = .16; kurtosis = 3.76, *SE* of kurtosis = .32); more participants were highly identified with Western Kentucky University while fewer participants were in the tail of the distribution. In order to help eliminate the negative skew and have scores more normally distributed prior to analyses with inferential statistics, the total score on WKU-S for each participant was raised to the 3.7[th] power and then standardized using *z*-scores to somewhat simplify interpretation. The skew value of the transformed WKU-S was -.37 (*SE* = .16) and the kurtosis value was -.90 (*SE* = .32). Although kurtosis was slightly better (kurtosis = -.86, *SE* = .32) when WKU-S was raised to the 3.6[th] power, skewness suffered (skew = -.40, *SE* = .16). Likewise, skewness was slightly better (skew = -.34, *SE* = .16) when WKU-S was raised to the 3.8[th] power, but kurtosis suffered (kurtosis = -.94, *SE* = .32). Therefore, subsequent analyses used the transformed (i.e., WKU-S$^{3.7}$), standardized WKU-S scores.

Table 1

Summary of Intercorrelations, Means, and Standard Deviations for Total Scores on WKU-S, RSE, PCF, SRA-S Student, and SRA-S Faculty

Scale	1	2	3	4	5	M	SD
1 WKU-S	-					5.840	1.369
2 RSE	.166*	-				3.065	0.504
3 PCF	.178**	.304**	-			3.810	0.615
4 SRA-S Student	.104	.214**	.250**	-		3.904	0.510
5 SRA-S Faculty	.097	.198**	.223**	.823**	-	4.015	0.574

Note. *N* = 228 participants. All scale totals were averaged across conditions. Higher scores on the scales indicate higher possession of the construct assessed. WKU-S = Western Kentucky University Identification Scale; RSE = Rosenberg Self-Esteem Scale; PCF = Perceived Contract Fulfillment; SRA-S Student = Self-Report Altruism Scale for Student-Focused items; and, SRA-S Faculty = Self-Report Altruism Scale for Faculty-Focused items. *p < .05 (two-tailed). **p < .01 (two-tailed).

Moderation Analyses

Using the R Statistical Suite, Hypothesis 1 was tested by creating a linear model via multiple regression in order to look at the interaction of uncertainty condition (salient vs nonsalient vs presentation apprehension) by fairness (voice vs no-voice) while controlling for the independent effects of both Western Kentucky University identification and self-esteem when predicting prosocial behavioral intentions directed towards students and faculty, respectively. The model was specified by dummy coding uncertainty condition into two variables, one indicating the contrast between the uncertainty nonsalient (coded 0) and the uncertainty salient (coded 1) conditions, and one indicating the contrast between the uncertainty nonsalient (coded 0) and the presentation apprehension (coded 1) conditions. Fairness was represented as a single dummy variable, coded 0 in the voice condition and 1 in the no-voice condition. In addition to these dummy variables, the model included standardized self-esteem and scores on the WKU-S. These latter, continuous variables were entered as conditional main effects, as well as with their respective interactions with the dummy-coded manipulated variables. In order to reduce the number of terms, no interactions of identification with the university with self-esteem were included in the model.

First, a linear model was created via multiple regression in predicting prosocial behavior intentions toward students. The overall adjusted R^2 for the model was .02. Therefore, Hypothesis 1 was not supported with respect to prosocial behavioral intentions directed at other students.

When the identical model was applied to predict prosocial behavioral intentions toward faculty and staff, the overall adjusted R^2 for the model was .10. There were

marginal effects ($p < .10$) of voice, self-esteem, and identification with the university in the uncertainty nonsalient control condition. However, outlier analysis indicated that all but the marginal effect of voice in the uncertainty nonsalient control condition disappeared following the removal of two outliers. Voice did not interact with either of the dummy-coded uncertainty variables, indicating its effect did not significantly differ across threat condition. Thus, Hypothesis 1 was not supported with respect to prosocial behavioral intentions directed at faculty, staff, or university employees.

Finally, the model was applied to predict perceived contract fulfillment to test Hypothesis 2. The overall adjusted R^2 for the model was .14. Initial results showed that identification with the university interacted with uncertainty and fairness such that when those higher in identification in the uncertainty-salient-no-voice condition, they showed less perceived contract fulfillment than those higher in identification in the uncertainty-salient-voice-condition, $b = -.41$, $t(210) = -2.23$, $p < .05$. Conversely, the effects of identification in the presentation-apprehension-no-voice condition were not significantly different from those in the uncertainty-nonsalient-voice condition, $b = -.26$, $t(210) = -1.31$, $p > .05$. Thus, Hypothesis 2 was not supported.

To further investigate, the three-level threat variable was collapsed into a two-level threat variable, coded as 0 = uncertainty nonsalient (i.e., no threat), and 1 = either uncertainty salient or presentation apprehension (i.e., threat). The same model was then re-run, with this modification of the threat variable. The overall adjusted R^2 for the model was .14. Results indicated, first, that identification with the university seemed to provide a protective effect against threat on perceived contract violations. Whereas the effects of threat by themselves did not differ significantly, there was a significant threat by

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identification interaction, $b = .23$, $t(210) = 2.17$, $p < .05$. This effect was further

moderated by the effect of voice, however. Under no-voice conditions, the positive effect

of identification with the university under threat were absent, such that higher WKU

identity corresponded to relatively lower perceived contract fulfillment, $b = -.34$, $t(210) =$

2.10, $p < .05$, as compared to the no-voice-no-threat condition. Figures 4 and 5 below

display the nature of the threat by fairness by WKU-S interaction in predicting PCF.
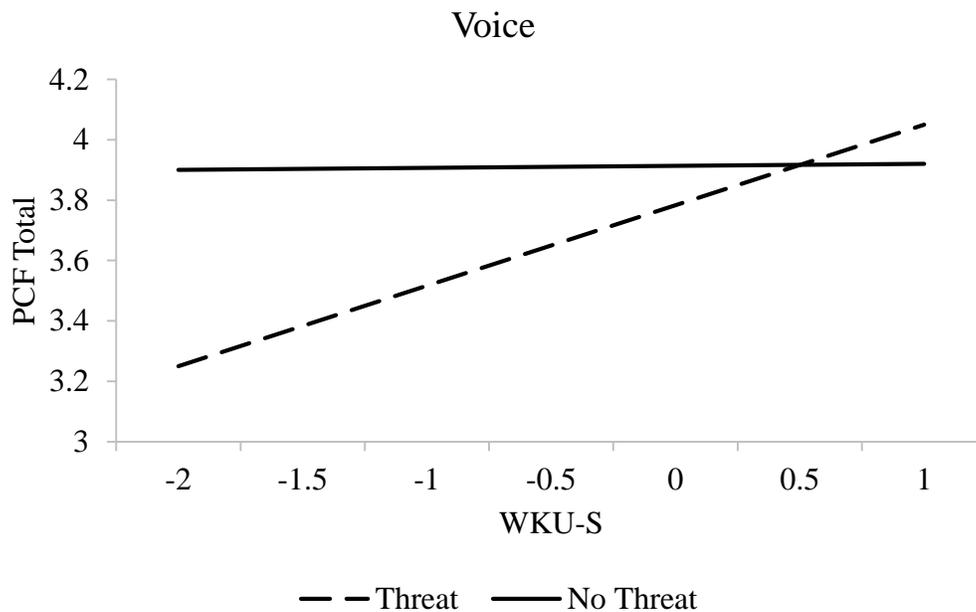
Figure 4. Interaction between threat, fairness, and WKU identification on perceived

contract fulfillment. Higher total PCF indicates more perceived fulfillment. The values

plotted include participants in the voice condition. Threat refers to both the uncertainty

salient and presentation apprehension conditions, collapsed; no threat refers to the

uncertainty nonsalient condition. WKU-S indicates transformed scores on the WKU-S.
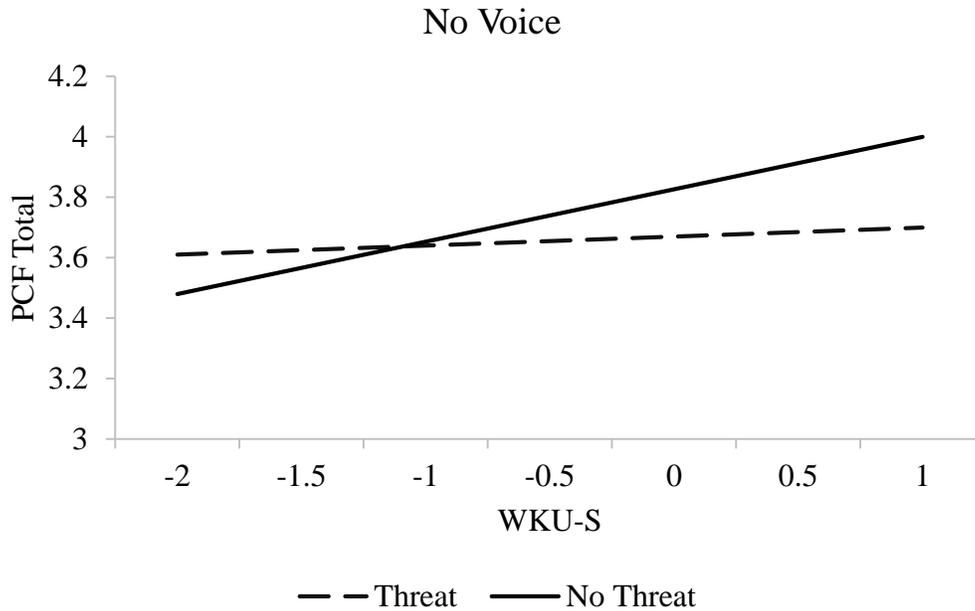
No Voice

Figure 5. Interaction between threat, fairness, and WKU identification on perceived contract fulfillment. Higher total PCF indicates more perceived fulfillment. The values plotted include participants in the no voice condition. Threat refers to both the uncertainty salient and presentation apprehension conditions, collapsed; no threat refers to the uncertainty nonsalient condition. WKU-S indicates transformed scores on the WKU-S.

Mediational Analysis

Mediational analysis (i.e., Hypothesis 3) looking at the relationship between uncertainty by fairness on prosocial behavioral intentions through perceived contract breach was not performed. This was because neither uncertainty nor voice predicted the mediator or distal dependent variable, a critical prerequisite in order to establish a mediating relationship.

<div align="center">

Discussion

</div>

The current study looked at the possible mediating effect of perceived psychological contract fulfillment in the relationship between fairness and prosocial

behavioral intentions under conditions of uncertainty. Specifically, the current study

tested an interaction between uncertainty and fairness that was then mediated by

perceived contract fulfillment in predicting prosocial behavioral intentions towards

different groups. Results did not support the hypotheses. In fact, the interaction between

uncertainty and fairness did not predict either perceived contract fulfillment or prosocial

behavioral intentions, respectively.

In a series of exploratory follow-up analyses, identification with the university

interacted with uncertainty threat and fairness to predict perceived contract fulfillment.

Specifically, high identification with the university appeared to act as a buffer in both the

threat-voice and the threat-no-voice conditions. Participants who were low in

identification seemed to perceive less contract fulfillment when they were in the threat-

voice condition than did those in the no-threat-voice conditions. However, at high levels

of identification, participants reported high levels of contract fulfillment regardless

whether they were in the threat- or no-threat-voice condition. Conversely, identification

with the university had different effects when participants were denied voice. Participants

who were low in identification with the university reported moderate levels of perceived

contract fulfillment regardless whether they were in the threat-no-voice or no-threat-no-

voice condition. However, at high levels of identification, participants seemed to perceive

less contract fulfillment when they were in the threat-no-voice condition than did those in

the no-threat-no-voice condition.

The group engagement model suggested by Tyler and Blader (2003) and tested by

Blader and Tyler (2009) may shed some light on the results found in this study.

According to the group engagement model, identification with the organization can act as

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a tool to influence an individual's attitudes, values, and behaviors towards an organization. Specifically, the group engagement model argues that social identify mediates the relationship between procedural justice and organizational outcomes. Furthermore, the model argues that procedural justice serves an "identity security" function in that by identifying with the group, people may experience positive feelings of self-worth through their connection with, and following interaction with, the group (Tyler & Blader, 2003). Blader and Tyler (2009) found support for the model across two field studies; the authors found that the social identity employees form around their work was strongly related to their extra role behaviors, and social identity accounted for the impact of procedural justice and distributive justice. Although the theory originally was developed for the workplace, it could be argued that the group engagement model can explain why identification with the university played the role it did in this study. For example, those who identified highly with the university perceived more contract fulfillment when they were granted rather than denied voice under conditions of threat but perceived similar levels of breach under conditions of no threat. In this case, those who were highly identified may have relied more on their identification with the university than on their uncertainty when forming their judgments concerning a breach in their psychological contract.

Limitations

Like others, this study is not without limitations. First, this study used university undergraduate students enrolled in psychology courses. As such, the results based on this sample may not generalize outside the controlled experimental environment employed in

this design. Although it used a convenience sample, the high level of control used within the study was vital in order to look at the complex nature of the purposed relationship.

Second, participants completed this study online and were not required to report to a laboratory to be included in the study. Therefore, some participants may have been distracted during the completion of the study. In fact, when examining the comments one participant indicated they got interrupted during the duration of the study. Although participants were asked to indicate if they felt their data should be included in the study and to provide any feedback, not all participants may have honestly indicated the desire for their data to be excluded. Likewise, they may not have reported that they did not give their full attention during the study. Although not ideal, the ability for participants to complete the study on their own time without having to report to a laboratory maximized the number of participants eligible. Again, it was vital to have a large data set in order to look at the complex nature of the purposed relationship.

Third, because the sample consisted of university undergraduate students, the perceived contract fulfillment scale may not have been interpreted as intended. Students may not hold the same expectation or feel they are owed the same things from the university as employees do from their employers, which may explain the lack of mediation found in this sample. However, use of actual employees was not feasible for the study; therefore, undergraduate students were the most available and best option in this study.

Fourth, it was expected that scores on the prosocial behavioral intention scales would differ based on whom the behaviors were directed towards. However, when examining scores on the prosocial behavioral intention scales, the two scales were highly

correlated (r = .823, p < .01). Participants indicated a high likelihood to engage in prosocial behaviors directed towards other students (M = 3.904) and faculty (M = 4.015). These results are may be consistent with the status-based social identify model in predicting cooperative behavior in groups (Tyler & Blader, 2001). The authors found that identity was relatively more important as an antecedent of cooperation in groups. Additionally, the authors argued that by engaging in behaviors that are beneficial to the group, people are expressing and maintaining feelings of pride and respect, which in turn helps to maintain a positive self-image; by helping one's group, one is helping themselves. The high correlation between the two prosocial behavioral intention scales in this study may reflect that participants were willing to help both students and faculty at Western Kentucky University because those behaviors benefit members of their group, and subsequently reflect well on themselves.

Finally, participants may not have perceived the justification provided for the implementation of senior comprehensive examinations as intended. When examining the comments provided by participants in the voice condition, those who were also in the uncertainty nonsalient condition expressed more acceptance of the proposed plan than did those who were in either the uncertainty salient or presentation apprehension conditions; in fact, several participants indicated that the examinations would be a good idea. As one participant put it (wording is verbatim): "I don't necessarily find comprehensive senior exams a bad thing, just added stress. I do believe you should be able to pass a test of [comprehension] over the degree that you have chosen." Although the justification provided was a weak argument that was intended to elicit unfavorable thoughts (Petty & Cacioppo, 1986), participants may have felt the university had upheld its end of the

psychological contract by even providing a reason as to why senior comprehensive examinations were to be implemented in the first place. This actually is consistent with previous research (e.g., Bies & Shapiro, 1988) that has found when justifications are provided, participants judge the process as more fair regardless of whether the outcome is favorable or unfavorable to them. However, not all participants shared the view stated above. In fact, of those in the voice condition across all uncertainty conditions, only 19.5% of participants indicated favorable opinions towards the senior comprehensive exams. Therefore, it can be assumed that most participants did not perceived the weak argument as a compelling justification.

Future Research

Future research may wish to look at a simpler model than the one proposed here. Currently, little research exists looking at the uncertainty by fairness interaction in predicting perceptions of psychological contract fulfillment. Conversely, there is a plethora of research that has established the uncertainty by fairness interaction with respect to outcomes such as cooperation intentions and negative affect (e.g., De Cremer & Sedikides, 2005; van den Bos, 2001). Future research should first establish and then replicate the moderating effects of uncertainty and fairness in predicting perceived contract fulfillment before attempting to expand to test a mediated moderation model, as proposed here.

Additionally, future research may wish to look at the effects social identity may have by incorporating the group engagement model (Tyler & Blader, 2003). Although this model specifically looks at positive outcomes associated with social identity, it would be interesting to see if the same mediating effects of social identity occur when

focusing on specifically negative outcomes such as a breach of one's psychological contract. Results from this study suggest that identification with the organization may play an important role during the formation of procedural fairness judgments and subsequent perceived contract fulfillment when under conditions of uncertainty.

Finally, because the use of actual employees may not be feasible when testing such models, future research might use graduate-level students as subjects. Graduate students may have been promised certain things (e.g., one-on-one mentorship) by their graduate program when they were recruited, and, therefore, may develop a type of psychological contract with their graduate school. Indeed, Spies et al. (2010) developed a scale that specifically measured perceptions of psychological contract breach for pharmacy students with the pharmacy school, which was modified in the present study to reflect the broader nature the of undergraduate's interactions with the university. That being said, the modified psychological contract scale used in this study showed high internal consistency ($\alpha = .930$) indicating that problems with internal consistency are not likely a cause for these findings. It may be of interest for future research to conduct further reliability and factor analyses to determine if the scale may generalize to other universities.

Conclusion

Currently, much research exists examining the interaction between uncertainty and justice on both positive and negative affective, behavioral, and cognitive outcomes. Little research exists, however, combining psychological contract with uncertainty and justice to predict outcomes. In fact, research on psychological contracts has focused rather exclusively on negative outcomes. This study aimed to combine the research on

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uncertainty, justice, and psychological contract when focusing on positive outcomes, such as prosocial behaviors directed toward others. This study proposed and tested a mediated moderation model in explaining instances of organizational citizenship behaviors, namely prosocial behaviors. Although support was not found for the hypotheses, an interesting interaction between social identity, uncertainty, and justice emerged in explaining perceptions of psychological contract fulfillment. The emergence of this three-way interaction may shed some light on boundary conditions in which psychological contract fulfillment occurs.

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Appendices

Appendix A: Psychological Contract Fulfillment Scale Items and Factors

	Item Numbers	**Item**
Factor 1: Faculty	16	Enough faculty to give students adequate attention.
	17	The potential to interact one-on-one with faculty.
	15	Interaction with faculty, staff, or university employees at outside of the class setting.
	18	Faculty who are knowledgeable about current developments in their areas of expertise.
Factor 2: Futuristic	13	Guidance on various career pathways.
	2	Courses that cover emerging roles/trends within your major.
	12	Mentorship for my academic pursuits.
	3	Educational programs that are responsive to technological change in various professions.
Factor 3: Student Development	11	Responsiveness to students' evaluations about the curriculum.
	10	A potential to be heard.
	9	Development of my leadership.

Factor 4: Course & Curricular Content	8	Coverage of essential content in courses.
	7	Minimal repetition of concepts and content throughout curriculum.
Factor 5: Learning Opportunities	6	Learning opportunities for acquisition of written communication skills.
	5	Learning opportunities for acquisition of oral communication skills.
	4	Learning opportunities for developing critical thinking skills.
Factor 6: Involvement	14	Involvement in extracurricular activities.
	1	Potential to participate in WKU committees and/or clubs (e.g., Student Government Association).
Factor 7: Facilities	20	Physical facilities that are sufficient in size to accommodate the student body.
	19	Physical facilities that are adequately equipped for teaching and learning.

Appendix B: Student-Focused Self-Report Altruism Scale

We are interested in understanding attitudes towards others at the university, and will ask you about other students and employees separately. Based on how you feel right now, please indicate to what extent you would be likely to do each of the following *for other students at Western Kentucky University students.*

		Very Unlikely	Unlikely	Not Sure	Likely	Very Likely
1	Help push another student's car out of the snow.	1	2	3	4	5
2	Give directions to another student.	1	2	3	4	5
3	Let another student use your phone if their battery dies.	1	2	3	4	5
4	Give money to the Student Government Association.	1	2	3	4	5
5	Donate goods or clothes to the Student Government Association.	1	2	3	4	5
6	Volunteer to work for a student lead charity.	1	2	3	4	5
7	Donate at a blood drive sponsored by a student lead organization.	1	2	3	4	5
8	Help carry a disabled student's belongings (books, bags, etc.).	1	2	3	4	5
9	Delay an elevator and hold the door open for another student.	1	2	3	4	5
10	Allow another student to go ahead of me in a line at our cafeteria or other place on campus.	1	2	3	4	5
11	Give another student a lift in my car.	1	2	3	4	5
12	Let another student whom I do not know well borrow an item of some value to me (e.g., textbooks).	1	2	3	4	5
*13	Help a classmate whom I do not know well with a homework assignment.	1	2	3	4	5
14	Offer to help an injured student to cross the street to the health center.	1	2	3	4	5
15	Offer my seat on the bus or train to another student who was standing.	1	2	3	4	5

Note: Item marked with an asterisk (*) does not contain parallel item on other SRA-S.

Appendix C: Faculty-Focused Self-Report Altruism Scale

We are interested in understanding attitudes towards others at the university, and will ask you about other students and employees separately. Based on how you feel right now, please indicate to what extent you would be likely to do each of the following *for faculty, staff, or others employed at Western Kentucky University.*

		Very Unlikely	Unlikely	Not Sure	Likely	Very Likely
1	Help push a member of faculty's, staff's, or other WKU employee's car out of the snow.	1	2	3	4	5
2	Give directions to a member of faculty, staff, or other WKU employee.	1	2	3	4	5
3	Let a member of faculty, staff, or other WKU employee use your phone if their battery dies.	1	2	3	4	5
4	Give money to the Hilltopper Foundation Charity.	1	2	3	4	5
5	Donate goods or clothes to the WKU Food Pantry.	1	2	3	4	5
6	Volunteer to work for the WKU Habitat for Humanity program.	1	2	3	4	5
7	Donate blood for WKU's annual blood drive.	1	2	3	4	5
8	Help carry a disabled member of faculty, staff, or other WKU employee's belongings (books, bags, etc.).	1	2	3	4	5
9	Delay an elevator and hold the door open for a member of faculty, staff, or other WKU employee.	1	2	3	4	5
10	Allow a member of faculty, staff, or other WKU employee to go ahead of me in a line at our cafeteria or other place on campus.	1	2	3	4	5
11	Give a member of faculty, staff, or other WKU employee a lift in my car.	1	2	3	4	5
12	Let a member of faculty, staff, or other WKU employee whom I do not know well borrow an item of some value to me (e.g., textbooks).	1	2	3	4	5

Continued on next page.

13	Offer to help an injured member of faculty, staff, or other WKU employee to cross the street to the health center.	1	2	3	4	5
14	Offer my seat on the bus or train to a member of faculty, staff, or other WKU employee who was standing.	1	2	3	4	5

Appendix D: Western Kentucky University Identification Scale

		Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	I identify with WKU.	1	2	3	4	5	6	7
2	I feel committed to WKU.	1	2	3	4	5	6	7
3	I am glad to be a member of WKU.	1	2	3	4	5	6	7
4	Being a WKU student is an important part of how I see myself.	1	2	3	4	5	6	7

Appendix E: Rosenberg Self-Esteem Scale

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

		Strongly Agree	Agree	Disagree	Strongly Disagree
1	On the whole, I am satisfied with myself.	1	2	3	4
*2	At times I think I am no good at all.	1	2	3	4
3	I feel that I have a number of good qualities.	1	2	3	4
4	I am able to do things as well as most other people.	1	2	3	4
*5	I feel I do not have much to be proud of.	1	2	3	4
*6	I certainly feel useless at times.	1	2	3	4
7	I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4
*8	I wish I could have more respect for myself.	1	2	3	4
*9	All in all, I am inclined to feel that I am a failure.	1	2	3	4
10	I take a positive attitude toward myself.	1	2	3	4

Note: Items marked with an asterisk (*) are reverse scored.

Appendix F: Attitudes towards Comprehensive Examinations Scale

1	Overall, how positive or negative would you say senior comprehensive exams are?	Very Negative	1	2	3	4	5	Very Positive
2	How favorable or unfavorable is your attitude towards senior comprehensive exams?	Very Unfavorable	1	2	3	4	5	Very Favorable
3	Are you against or in favor of senior comprehensive exams?	Very Much Against	1	2	3	4	5	Very Much in Favor of
4	How certain are you about your opinion of senior comprehensive exams?	Very Uncertain	1	2	3	4	5	Very Certain
5	How persuasive did you find the message in favor of senior comprehensive exams?	Very Unpersuasive	1	2	3	4	5	Very Persuasive