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EXAMINING THE INTERACTION BETWEEN LEADERSHIP STYLE AND
ORGANIZATIONAL JUSTICE AND ITS EFFECT ON ORGANIZATIONAL
COMMITMENT, JOB SATISFACTION, AND WORK STRESS

A Thesis
Presented to
The Faculty of the Department of Psychology
Western Kentucky University
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In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts

By
Gregory Kedenburg

August 2014

EXAMINING THE INTERACTION BETWEEN LEADERSHIP STYLE AND ORGANIZATIONAL JUSTICE AND ITS EFFECT ON ORGANIZATIONAL COMMITMENT, JOB SATISFACTION, AND WORK STRESS

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I dedicate this thesis to my parents, James and Pamela Kedenburg, without whom I would not be where I am today. Their continued support and encouragement has been incredible and I thank them for everything they've done to help me get to this point.

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This thesis examines the constructs of organizational commitment, job satisfaction, and work stress, and the extent to which they are affected by perceptions of organizational justice and leadership styles. Much of the literature related to these topics focuses on exploring the relationship between either justice and commitment or leadership and commitment, with very little research investigating the way that justice and leadership combine to affect outcome variables such as commitment, satisfaction, and stress. This study reviewed the literature that details these topics in order to facilitate the understanding necessary to then focus on the relationship between commitment, organizational justice, and leadership style, as well as job satisfaction and work stress. It is important to understand how these three concepts affect one another, as increasing employee commitment is a goal of many, if not all organizations, and understanding how to better influence and facilitate it could be very valuable information.

Examining the Interaction between Leadership Style and Organizational Justice and its Effect on Organizational Commitment, Job Satisfaction, and Work Stress

The study of organizational commitment is complex, as various factors interplay to determine the varying levels of attachment that an individual feels to his/her organization. Employee commitment is an important construct for organizations to consider, as an increase in certain types of commitment, such as normative and continuance commitment, will lead to the beneficial outcome of continued employment of employees, whereas an increase in other types of commitment, such as affective commitment, can lead to increased attendance and performance (Meyer & Herscovitch, 2001). Factors such as individual mind-set, organizational values, availability of alternatives, and personal involvement, among others, all play a role in determining the level to which someone feels committed to an organization (Meyer & Herscovitch). Two of the most prominent antecedents of commitment, however, are organizational justice and leadership style (Aydin, Sarier, & Uysal, 2013; Cropanzano, Bowen & Gilliland, 2007). As there are certain corollaries between leadership style and organizational justice practices, the interaction of the two may have a unique effect on organizational commitment (see e.g., De Cremer, Van Dijke, & Bos, 2007). As such, these concepts will be explored and defined more thoroughly throughout the course of this review, detailing in depth the theories and research behind organizational commitment, organizational justice, and leadership styles. In addition, job satisfaction and work stress will be examined as outcomes of transformational leadership and organizational justice, as they are factors that are often affected by the presence or absence of both transformational leadership and organizational justice (Chontawan, Nantsupawat, & Wang, 2012; Darshan & Shibru,

2011; Flaschner, Gill, & Shachar, 2006; Munir & Nielsen 2009). The present research will seek to further delve into the relationships between these three constructs, thereby providing a better understanding of how the presence or absence of organizational justice and various types of leadership interplay to affect organizational commitment, as well as job satisfaction and work stress.

Organizational Commitment

Organizational commitment theory revolves around the idea that there are varying levels of commitment that individuals feel towards the organization at which they are employed (Allen & Meyer, 1991). In 1991, Meyer and Allen published an article in which they reviewed prior research related to commitment in an effort to help better operationally define organizational commitment. Their research was instrumental in developing unified theories regarding commitment, as well as introducing their three component conceptualization of commitment, giving us definitions for the three types of commitment: affective, normative, and continuance (Allen & Meyer). Affective commitment implies a relationship of an emotional nature; an individual that is affectively committed to their organization remains employed there due to a genuine, emotional attachment to the organization. This individual deeply enjoys their work at the organization, identifies thoroughly with its values, and is involved with the organization on a level deeper than a strictly employee-employer relationship (Allen & Meyer). Normative commitment involves an individual feeling obliged to continue their employment at a certain organization. This type of commitment does not include the deep emotional aspect seen in affective commitment, but an employee with a normative attachment may still enjoy their role at the organization. Whether it be that they feel they

are treated fairly, compensated competitively, or just an overall feeling of satisfaction with their current employment situation, normative commitment is represented through a more formal, business-like feeling of obligation to one's organization (Allen & Meyer). Finally, continuance commitment is characterized by a feeling of near confinement, as the individual that is committed to their organization in this way remains in their employ because the benefits of leaving do not outweigh the negative aspects of leaving. Whatever their field, they either feel as though the current job market is not competitive enough to warrant them leaving their job, or what they would give up by leaving is perceived as not worth it compared to remaining. These perceptions cause them to remain in their current job because the costs of leaving outweigh the costs of staying (Allen & Meyer).

These three levels of commitment have many antecedents, which differ based on the type of commitment being examined (Herscovitch & Meyer, 2001). For example, as shown above, continuance commitment is often based in a lack of alternatives, or the presence of other investments or "side bets," as described by Meyer and Herscovitch. Paltry options or other investments lead to continuance commitment in that no better alternative is presented to the individual, causing them to be merely continually committed to the organization (Herscovitch & Meyer). Normative commitment is preceded by feelings of obligation or perceived fulfillment of the psychological contract on the behalf of the organization. Meyer and Herscovitch also listed the internalization of norms, as well as the perceived fairness of the benefits they receive, and the extent to which the organization reciprocates based on the effort they put into their work as antecedents of normative commitment (Herscovitch & Meyer). Finally, the researchers stated that affective commitment is generally caused by a desire to work at an

organization, personal involvement with the organization, and shared values. The extent to which an individual identifies with the organization and internalizes their values and mission plays a role in making that individual affectively committed to an organization (Herscovitch & Meyer). Aside from these various antecedents put forth by Meyer and Herscovitch, research shows that both organizational justice (Bakhshi, Kumar, & Rani, 2009) and different leadership styles (Limsila & Ogunlana, 2008) can affect employee commitment.

An additional construct of relevance when discussing organizational commitment is perceived organizational support (POS). As its name suggests, POS is the extent to which an employee feels that they are supported by their organization (DeConinck & Johnson, 2009). Examples of POS would be the willingness of one's manager to offer help when needed, the amount of feedback given to the employee, and whether the general culture of the organization is perceived as supportive (DeConinck & Johnson). DeConinck and Johnson conducted research analyzing the interaction of POS and organizational justice, finding that POS is very closely tied to a form of justice known as distributive justice, or the perceived fairness of the distribution of outcomes, in that both affect the employee's perceptions of whether or not the outcomes they receive are fair (DeConinck & Johnson). The researchers stated that less turnover was reported among employees who felt that they were being supported by the organization, indicating that organizational commitment was increased by the presence of POS (DeConinck & Johnson). However, Shore and Wayne (1993) make an important distinction between POS and organizational commitment in that whereas POS does influence commitment, it is also a separate concept that is capable of influencing employees outside of their

attachment to an organization. Shore and Wayne delved deep into this topic, looking at how the effect that POS had on workplace behavior differed from the effect that affective and continuance commitment had on workplace behavior. In a study with 383 participants, both POS and affective commitment were shown to positively affect organizational citizenship, with POS being the best predictor, and continuance commitment being negatively related to organizational citizenship behavior (OCB), which refers to helping behaviors not explicitly tied to a formal reward (Shore & Wayne). The study differentiates between POS and affective commitment by underlining the feelings of obligation that come from feeling supported by one's organization, and the citizenship behaviors that arise from a genuine, emotional attachment to the organization via affective commitment (Shore & Wayne).

Organizational commitment is a construct that is influenced by the presence (or lack thereof) of organizational justice. In order to understand how organizational commitment is influenced by organizational justice, it is first important to detail the core elements of organizational justice.

Organizational Justice

Organizational justice describes the processes through which decisions are made, information is disseminated, and relationships are built, all of which affect organizational commitment (Cropanzano et al., 2007). The three components that make up organizational justice, as described by Cropanzano et al. are distributive justice, procedural justice, and interactional justice. Distributive justice, first defined by Adams in 1965, refers to perceptions pertaining to the allocation of resources and/or the determination of an outcomes distribution (Adams, 1965). The level of transparency and

fairness that is involved with organizational outcomes, such as in promotion or selection settings, will help determine whether distributive justice is present. For example, imagine that a hypothetical organization has a promotion to allocate. Giving the promotion to the most qualified employee would likely be considered distributively just, whereas giving the promotion to a less qualified employee would be viewed as less just (Cropanzano et al.). Procedural justice was originally defined by Leventhal (1980) as the justice of the allocation processes, or the fairness of the systems that determine resource and outcome allocation. Returning to the promotion example, if the less qualified employee was rewarded the promotion, as long as the process through which the promotion was given is fair, consistent, and free of bias, it can be said to have been procedurally just (Cropanzano et al.). The final justice component, interpersonal justice, is viewed by Colquitt, Conlon, Wesson, Porter and Ng (2001) as two separate forms of justice: informational justice, which refers to the dissemination of information and transparency, and interactional justice, which refers to perceptions of whether one is treated with respect and dignity (Colquitt et al.)

Organizational justice is an integral part of any successful organization; the outcomes that result from ideal justice practices are very beneficial to organizations, and are explained thoroughly by Cropanzano et al. (2007). Namely, the presence of organizational justice helps build trust between the organization and its employees; Cropanzano and colleagues found the correlation between justice and trust to be .60. In addition, organizational justice (or more specifically, interactional justice) has been linked to increased job performance by leading to improved relationships between supervisors and subordinates (Cropanzano et al.). Justice has been positively linked to

increased instances of OCB, as fairly treated employees have been shown to more often adhere to organizational policies, to be more conscientious, and to display altruism more frequently; however, interestingly, it has been shown that employees will intentionally decline to perform OCBs towards individuals they believe have not treated them justly (Cropanzano et al.). Finally, the authors showed that organizational justice helps build customer satisfaction and loyalty through these instances of OCB. The presence of OCBs between employees is thought to “spill over” to customers, which causes the patrons of an organization to feel more justly treated, which leads to higher satisfaction and customer loyalty (Cropanzano et al.). As the work outcomes described above are all highly beneficial for any organization, research has suggested that organizational justice is a construct that should be ignored at one’s own peril.

Effects of Organizational Justice on Commitment

As mentioned above, the presence or lack of one or more components of justice can affect how committed an individual is to their organization, which then in turn affects their behavior in the workplace (Cropanzano et al., 2007). Greenberg (1990) conducted a study in which he presented two separate groups of factory workers with the information that they would be receiving pay cuts. In one group, the decision to cut employee pay was explained thoroughly to the workers over the course of 90 minutes, during which time management explained to them the various reasons, justifications, and other considered solutions before apologizing and showing remorse. In the other group, management spent 15 minutes explaining the situation, giving no justifications or reasoning, and showing no remorse. Greenberg found that both theft and turnover within the group that received an inadequate explanation of why their pay was being cut were significantly higher than in

the group that received the adequate explanation. This increase of counterproductive work behaviors stemmed from a decrease in organizational commitment for the group that received the inadequate explanation, which was influenced by decreased perceptions of interactional justice. Thus, Greenberg's study is a prime example of the effect that organizational justice can have on organizational commitment.

In a paper examining interactional justice as it relates to pay in organizations, Greenberg and McCarty (1990) further emphasized the importance of the interpersonal aspect of communicating pay decisions. If the goal of organizations is to increase acceptance of decisions regarding pay, Greenberg and McCarty suggested being as transparent as possible, focusing on the "why" and "how" facets of the decision rather than providing only your decision and no other information (Greenberg & McCarty). Mirroring Greenberg's (1990) findings, Folger and Bies (1989) looked at the effects of managerial actions and methods on employee behavior and reactions to implementing procedures in organizations. Specifically, examining behaviors such as telling the truth to subordinates, being polite and respectful to subordinates, justifying actions, and showing that you are taking subordinate ideas and suggestions under real consideration were all shown to help mitigate negativistic reactions to new decision making procedures (Folger & Bies, 1989).

Kumar, Bakhshi and Rani (2009) addressed an interesting aspect of the theories of organizational justice, in that the main goal for organizations should not be to strive to achieve the most just practices, but instead to strive for making their employees perceive that the practices are as just as possible. In most cases, the easiest way to make employees perceive that an organization is as distributively, procedurally, and

interactionally just as possible is to ensure that the organization's practices are actually as just as possible. In addition, Kumar et al. found that procedural justice is the component of justice that is most strongly related to organizational commitment. Understanding how a decision was made has been suggested to be the most crucial factor to adjusting an employee's perceptions of justice, demonstrating that it is helpful to clarify and be as transparent as possible with an employee, as again, it is important for them to believe that they are being treated fairly (Kumar et al.). Dessler's (1999) review of methods to build employee commitment is consistent with this idea. Namely, Dessler described several aspects of organizational justice that influence level and style of commitment. For example, many of Dessler's recommendations include clarification, be it clarifying the mission or one's tasks or goals, which harkens back to procedural justice. The more clarification and justification that can be given for a decision, the more thoroughly an employee will understand it, which is integral to commitment. Other suggestions posited by Dessler include being as charismatic as possible and creating a sense of community within the workplace, dealing with interpersonal justice, treating individuals with respect and dignity, and being as truthful and transparent with them as possible.

Whereas these aforementioned articles revolve around the implementation of justice and potential benefits of maintaining just practices, it is important to address the potential negative aspects of less-than-perfect justice practices. Dey (2012) aggregated research detailing the relationship between organizational commitment and union commitment, specifically how the treatment of subordinates by managers and supervisors can inform the decision of a subordinate to place their loyalty with either the organization or the union. Dey's conceptual study examined the nature of the relationship between a

supervisor and his/her subordinate, noting that procedural justice plays a special role in this relationship. Dey suggested that if a subordinate feels as though they are being treated fairly and the processes affecting the outcomes they receive are just and free of bias, they are less likely to seek out support from a union. Conversely, if an employer breaks the trust in the relationship, or the subordinate perceives they are being treated unjustly, they will be more likely to trade their organizational commitment for union commitment (Dey). In a day and age where unions and organizations are still at odds with one another, it would behoove organizations to ensure that their practices and decision-making processes are as just and fair to their employees as possible.

Whereas many of the findings from research related to organizational justice and commitment are similar, it is important to also acknowledge instances in which there are disagreements among scholars. For example, Suliman and Kathairi (2013) conducted a survey in which links between organizational justice and organizational commitment were analyzed, with a sample size of 500 participants from the United Arab Emirates. Their results indicated that even though procedural and interactional justice were positively and significantly related to affective commitment, they were also positively and significantly related to continuance commitment (Kathairi & Suliman). This finding is significant because it seems contradictory to think that the presence of procedural and interactional justice (e.g., fair and unbiased decision making processes and respectful, polite personal interactions) would be positively correlated with continuance commitment, a type of commitment characterized by remaining in a position for lack of a better opportunity. This finding could potentially be due to the fact that this study was carried out with participants from a culture and area of the world with relatively little

research on these topics, so the results may be somewhat confounded by these variables. Regardless, further research is needed to better understand the true relationship between organizational justice components and the different types of organizational commitment.

Transactional and Transformational Leadership

Now that the link between organizational justice and organizational commitment has been determined, the link between leadership style and commitment must be understood before all three concepts can be discussed in relation to each other. In order to understand the relationship between leadership styles and organizational commitment, the two styles of leadership relevant to this literature review must be examined. Bass, (1990) one of the foremost researchers on leadership, is credited with coining the terms transformational and transactional leadership, as well as listing the qualities that are associated with transformational leadership (i.e., charisma, inspiration, intellectual stimulation, and individualized consideration). According to Bass, a transformational leader is someone who inspires his/her subordinates, provides a clear mission and vision, communicates clearly and respectfully, and fosters a culture of trust and pride. Furthermore, a transformational leader is proactive, focuses on encouraging employees to develop the skills needed for them to excel, such as intelligence and problem solving, is able to provide subordinates with one-on-one attention, is an effective leader to all employees, and acts not only as a manager, but also as a coach and advisor (Bass). Conversely, Bass's description of a transactional leader is an individual who is reactive in nature, one who instead of inspiring and motivating his/her subordinates to take action, waits for employees to deviate from the goal or set standard, and then takes some form of corrective action (Bass). A transactional leader absolves themselves of responsibility,

avoids decision making when possible, and focuses much more heavily on the transactional nature of the relationship (i.e., pay for acceptable work, which is also known as contingency rewarding; Bass, 1997). Bass's research on leadership and the development of the concepts of transformational and transactional leadership has served as a jumping off point for countless other authors to incorporate his leadership theories into their work, and his theories are relevant to many aspects of organizational justice and commitment.

Leadership style can influence various factors in the workplace, most typically the behaviors of the subordinates under a specific type of leader. For example, Cho and Dansereau (2010) examined the effects of transformational leadership on subordinates in both an individual and group setting. As seen in Bass's (1990) description of transformational leadership, transformational leaders are able to inspire and motivate both on the individual and group level through one on one coaching and advising, effective and clear communication, and directed motivation. The researchers found that a transformational leader's ability to be both individually considerate and motivating on a group level was linked to increased OCB (Cho & Dansereau, 2010). Specifically, their research showed that a transformational leader's ability to work with an individual on their level, providing tailored support while maintaining a professional and respectful demeanor, predicted OCBs on the subordinate level, whereas the transformational leader's ability to be charismatic and provide an inspiring vision for the group predicted subordinate OCBs on the group level (Cho & Dansereau). In addition, group level OCBs led to more effective group functioning and higher instances of group interdependence, both beneficial outcomes resulting from transformational leadership.

Effect of Leadership Styles on Commitment

In much the same way that organizational justice affects how committed individuals are to their organization, leadership styles also influence organizational commitment. Barling, Weber, and Kelloway (1996) examined how transformational leadership training influenced the attitudes of subordinates in a workplace setting. In their study, 20 bank managers were assigned randomly to either receive training on transformational leadership or not, in the form of a one-day group session followed by four individual booster sessions (Barling, Kelloway & Weber). Findings indicated that the leaders who went through the training had significantly higher subordinate perceptions of their manager's transformational leadership ability, subordinate organizational commitment, and branch financial performance (Barling, Kelloway & Weber). This study lends credence to the fact that transformational leadership is a powerful tool with the ability to positively change the workplace. Likewise, Hater and Bass (1988) found that subordinates rate their supervisors as more effective when their supervisors exhibit transformational leadership. In a study in which the evaluations of supervisors (independent from ratings of transformational leadership) were compared with the level of satisfaction that subordinates felt with those supervisors, perceptions of effectiveness and satisfaction were higher for supervisors that displayed traits of transformational leadership (Bass & Hater). In addition, Koh, Steers, and Terborg (1995) looked at transformational leadership in schools in Singapore and found that, in instances in which school principals exhibited transformational leadership, teachers were more committed and student performance was positively (albeit indirectly) affected. The researchers

analyzed attitudinal and behavioral data collected from the principals and teachers, with the results showing that transformational leadership played a significant role in predicting organizational commitment, instances of OCBs, and satisfaction on the behalf of the teachers.

Bycio, Hackett, and Allen (1995) delved more deeply into the relationship between transformational leadership and, in addition to replicating the findings of Hater & Bass (1988), found that ratings of satisfaction were higher and subordinates' intent to leave their current job was decreased as a function of transformational leadership. Examining the different components of commitment, the researchers noted that affective commitment was most strongly affected by the presence of transformational leadership, and that normative and continuance commitment were not affected to the same degree. Evidenced by Fullagar, McCoy and Shull's (1992) study on union loyalty, transformational leadership and its effects may be applicable in union settings as well. Surveying 70 apprentices in a union management training program, the authors found that satisfaction with the training and attitudes towards unions as a whole were the best predictors of union loyalty. Attitudes toward unions were affected by the extent to which transformational leadership was present during the socialization process, showing that union loyalty was indirectly affected by transformational leadership (Fullager et al., 1992).

Research on transactional leadership has shown differing effects. Limsila and Ogunlana (2008) examined how leadership styles influenced the organizational commitment of subordinates in construction sites, with results that were consistent with the previous findings from Barling, Kelloway & Weber (1996); they found that

transformational leadership creates increased organizational commitment from subordinates. Interestingly, however, the results from their study also showed that whereas transformational leadership was more likely to cause higher commitment among subordinates, transactional leadership was not (Limsila & Ogunlana, 2008). As stated above, the findings regarding the effect of transformational leadership on organizational commitment match the findings of Barling, Kelloway & Weber (1996); but, the unique aspect of Limsila and Ogunlana's (2008) study regarding the effect of transactional leadership on organizational commitment is that not only is transformational leadership clearly the better style for fostering commitment, transactional leadership is actually not likely to foster commitment.

Reinforcing this idea, Aydin, Sarier and Uysal (2013) conducted a meta-analysis examining the organizational commitment and job satisfaction of teachers in Turkish schools, and how those factors were affected by differing leadership styles. Consistent with the previous findings, Aydin et al. concluded that the most significant effects on organizational commitment and job satisfaction occurred with transformational leaders; it is also important to note that the researchers found that transactional leadership also increased job satisfaction. According to the authors, this could be due to the fact that apart from the inspiration and motivation received from a transformational leader, teachers also need set expectations, rules, standards, and other basic managerial skills that transactional leaders offer (Aydin et al.). Also of note, the researchers pointed out that they discovered a negative correlation between transformational leadership and the compliance aspect of organizational commitment, which was defined by the researchers as “superficial loyalty...[and the] expectation of reward or fear of punishment to fulfill

[their] duties” (Aydin et al., p. 808). This finding is particularly interesting, as the compliance facet of organizational commitment more closely resembles the expectations of a transactional leader than a transformational leader, offering incentives for completing tasks. This may explain why the compliance aspect of commitment in this case was negatively associated with transformational leadership. The researchers continued to point out that despite the negative correlation with the compliance aspect of organizational commitment, transformational leadership was useful in the forming of a deeper commitment and identification with the organization (Aydin et al.). This research not only reinforces the previous findings on the impact of transformational leadership on organizational commitment, but also includes the added bonus of highlighting the increased job satisfaction that both transformational and transactional leadership may create.

In another cross-cultural observation of the effect that transformational leadership has on organizational commitment, Dunn, Dastoor, and Sims (2012) surveyed participants from both the United States and Israel. Their results showed findings consistent with that of previous research on the subject, that transformational leadership practices led to increased employee desire to remain with the organization (Dastoor et al.). Furthermore, transformational leadership was not related to continuance commitment, and the researchers’ findings on the link between transformational leadership and commitment did not differ based on the nation of origin (Dastoor et al.). This research is promising as it highlights the similarities between organizations in different cultures as far as the tendencies and perceptions of employees as they relate to leadership style and commitment.

Previous research has provided support for both the link between organizational justice and commitment and the link between leadership styles and commitment. The next section of this paper will explore the corollaries between organizational justice and leadership styles.

Exploring the Overlap Between Leadership Styles and Organizational Justice

There are some obvious similarities between certain justice components and aspects of leadership. For example, procedural justice has been found to increase organizational commitment (Greenberg, 1990), as has transformational leadership (Limsila & Ogunlana, 2008). As both procedural justice and transformational leadership share some common elements, their similarities may be responsible for their similar relations with organizational commitment. Namely, both procedural justice and transformational leadership place an emphasis on clear, effective, and transparent communication as a means of disseminating information to subordinates. In addition, interactional justice and transformational leadership both focus on the respectful, dignified, and professional aspects of personal relationships, and being truthful and reasonable at the individual level. There are also similar aspects when looking at transactional leadership and justice. Referring back to Greenberg's (1990) study, organizational justice was significantly lower for the group that experienced a lower level of interactional justice. In addition, in some instances, transactional leadership is also not likely to foster commitment (Limsila & Ogunlana), which follows logically from the information in Greenberg's (1990) study. This may be due to the fact that transactional leadership does not involve the level of individual acknowledgement, respect, and professionalism that is present in transformational leadership. That both transactional

leadership and a lack of procedural and interactional justice can lead to decreased organizational commitment draws further parallels between organizational justice components and leadership styles.

De Cremer, Van Dijke, and Bos (2007) examined the extent to which justice components influenced subordinates' perceptions of transformational leadership. Framing transformational leadership through different justice components in a vignette, the researchers found that interactional justice caused subordinates to view the leader as transformational, a finding that was replicated in a field study (Bos et al.). This concept makes sense, as again, the similarities drawn above between the polite, respectful, and dignified treatment that characterizes interactional justice closely mirrors practices of a transformational leader, who works one-on-one with individuals and treats them professionally while still being respectful. Van Dijke, De Cremer, Mayer, and Van Quaquebeke (2012) conducted a study in which the similarities between leadership style and organizational justice are again noted. The researchers manipulated whether or not an individual was exposed to a leader who encouraged self-development and independent action (De Cremer et al.). It is important to note that encouraging self-development is a characteristic of transformational leaders, whereas encouraging the subordinate to handle their problems on their own is a trait of transactional leaders. The researchers found that subordinates who were encouraged to develop themselves as employees were more likely to seek out information regarding their status in the organization, whereas employees encouraged to take independent action were less likely to seek out that information (De Cremer et al.). This information is relevant to the interaction between leadership style and justice components in that a subordinate's status in an organization is a type of outcome.

Individuals who were under a transformation leader, one that encouraged self-development, seemed to be more concerned with the fairness of their position in the organization, or the outcome, which is the fairness ascribed to distributive justice.

Expanding on this topic, research done by De Cremer, Van Dijke and Bos (2007) examined the relationship between another aspect of transformational leadership and distributive justice. Namely, the researchers examined the effect that self-sacrificing behavior, an element of transformational leadership, had on organizational commitment when distributive justice was low (Bos et al.). This study is particularly interesting, as it looks at how employees' attitudes change according to which type of leadership they are experiencing when they perceive their outcomes as unfair. The researchers found that when the leader engaged in self-sacrificing behavior, subordinates' attitudes and commitment were positively affected (Bos et al.). When distributive justice was low, employees perceived their outcomes as unjust, but when a leader showed that he/she was willing to engage in self-sacrificial behavior on the behalf of their subordinates, the commitment of those subordinates increased (Bos et al.). This interaction indicates that when certain elements of organizational justice are either present or not, employees' perceptions will be affected by the type of leadership they are given in those instances. Van Knippenberg and Van Knippenberg's (2005) study on self-sacrificing behavior from a leadership perspective reinforces these findings. The researchers found that leaders who engaged in self-sacrificing behavior were rated as more effective and more charismatic, and had increased subordinate productivity (Van Knippenberg & Van Knippenberg).

Organizational justice, leadership styles, and organizational commitment are all very closely associated topics. Both organizational justice and leadership styles are linked

to commitment, and there is also a certain degree of overlap between them. Both address the process through which an individual receives information, how they are treated by their superiors, and the general atmosphere of the organization in which they are employed. The interaction between organizational justice and leadership styles has a clear effect on subordinates' perceptions and attitudes, as noted in the study from De Cremer et al., (2007), but it must also be understood that the effect can differ. For example, a transformational leader may improve attitudes and commitment when distributive justice is low, but how might that interaction change if procedural justice were low? Is every aspect of transformational leadership necessary in order to affect positive attitude change among subordinates when organizational justice is not present? How does transactional leadership affect subordinate perceptions when justice is present (or not)? These are all interactions that need to be delved into deeper, and as such they will be the focus of the current study.

Job Satisfaction and Employee Stress as Outcomes of Organizational Justice and Transformational Leadership

Similar to the connections that organization justice and transformational leadership have with organizational commitment, there is also a relationship between these constructs and other outcomes, such as job satisfaction and employee stress. Research done by Kumar et al. (2009) examined organizational justice as a predictor of job satisfaction and found that individuals who perceived justice within their organization were more likely to experience job satisfaction and have decreased desires to leave that organization. This finding was reinforced by Aslam, Shumaila, Sadaqat, Bilal, and Intizar (2013), who studied the link between organizational justice and job satisfaction for

college professors. The researchers found that organizational justice had a positive correlation with job satisfaction, with employees becoming more satisfied as they perceived their outcomes and the allocation processes to be more fair (Aslam et al.).

There is also a link between transformational leadership and job satisfaction. Wang, Chontawan, and Nantsupawat (2012) examined registered nurses in a Chinese hospital and how transformational leadership affected their job satisfaction. The researchers found that when the nurse managers exhibited transformational leadership, the registered nurses that were their subordinates were more satisfied with their jobs (Chontawan et al., 2012). This relationship is also supported by other research findings as well. Shibru and Darshan (2011) found that in Ethiopian organizations, job satisfaction could be predicted by transformational leadership. This is an especially interesting finding in that the study was conducted in a non-western culture, but replicated findings from western cultures, indicating that the link between transformational leadership and job satisfaction generalizes across cultures (Shibru & Darshan, 2011). In addition, Ahangar (2009) looked at transformational leadership in building managers in public sector banks in Iran. Ahangar looked at the effects of transformational leadership, transactional leadership, and laissez-faire leadership on outcomes such as extra employee effort, effectiveness, and job satisfaction. The results from the study indicated that every outcome was highly positively correlated with transformational leadership, with job satisfaction having the strongest correlation (i.e., $r = .77$; Ahangar).

Similarly, work stress has been linked to organizational justice as well. Judge and Colquitt (2004) looked at the relationship between justice and stress with work-family conflict as a mediator. The researchers found that stress was most strongly related to

procedural and interactional justice, with the presence of justice being associated with lower levels of stress (Colquitt & Judge). This finding was reinforced by a 2012 study conducted by Noblet, Maharee-Lawler, and Rodwell. In the study, the researchers looked at 640 Australian police officers and measured the relationship between stress-related working behaviors and employee performance behaviors, taking into consideration organizational justice theories as well. It was found that when perceptions of fairness are low, stress increases considerably, matching the findings from Judge and Colquitt's study (Maharee-Lawler et al.)

Leadership style can also have an effect on employee stress. Gill, Flaschner and Shachar (2006) examined the stress levels and burnout rates of employees in the hospitality industry. After implementing transformational leadership behaviors, the researchers found that transformational leadership led to less stress and consequently less burnout (Flaschner et al.). This result is supported by Nielsen and Munir's (2009) study, which examined how transformational leaders affect their subordinates' affective well-being. It was discovered that transformational leadership was associated with more positive affect in subordinates, indicating less stress on the behalf of subordinates (Munir & Nielsen). A final point of interest on the link between job stress and transformational leadership comes from Atkin-Plunk and Armstrong's (2013) examination of the relationship between transformational leadership and job stress in prison wardens. The researchers found that when prison wardens perceived themselves as being transformational leaders, they experienced less stress in their job (Armstrong & Atkin-Plunk). This result, while not indicative of transformational leadership's effect on

subordinates, shows that even the leaders themselves can have their stress mitigated by the presence of transformational leadership.

The Present Study

Drawing upon all of the information discussed in this literature review, and building directly on the research carried out by De Cremer et al. (2007), the present study seeks to more thoroughly explore the connections between behavioral aspects of transformational leadership and organizational justice, and how the relationship between these two concepts can affect employee commitment, job satisfaction, and stress. More specifically, the relationship between procedural justice and antecedents of transformational leadership will be examined, with the antecedents of leadership including behaviors such as self-sacrificing behavior, charismatic personality, inspiring motivation, individual encouragement, and creation of a vision. These behaviors, which are part of a transformational leader's repertoire (Bass, 1990), have been shown to impact commitment under the umbrella of transformational leadership. Select behaviors will be manipulated in the study, namely self-sacrificing behavior, individual encouragement, and inspiring motivation, alongside procedural justice, in order to determine the effect on commitment, job satisfaction, and stress.

As research by Cropanzano et al. (2007), Greenberg (1990), and Kumar et al. (2009) has demonstrated that justice perceptions can lead to increased commitment, and the findings of Kumar et al. (2009) and Aslam et al. (2013) have shown that the presence of justice can increase job satisfaction, as well as decrease stress (Colquitt & Judge, 2004; Maharee-Lawler et al., 2012), the first set of hypotheses will attempt to replicate these findings.

Hypotheses 1A-C: Organizational justice perceptions will be positively related to a) organizational commitment and b) job satisfaction, and negatively related to c) employee stress.

Evidenced by research conducted by Bycio et al. (1995), Koh et al. (1995), and Limsila and Ogunlana (2008), transformational leadership is positively associated with organizational commitment. In addition, Wang et al. (2012) and Darshan and Shibru (2011) found that transformational leadership qualities can increase subordinate job satisfaction, while also decreasing employee stress (Flaschner et al., 2006; Munir & Nielsen & Munir, 2009). As such, the second set of hypotheses replicates these effects.

Hypotheses 2A-C: Transformational leadership qualities will be positively related to a) organizational commitment and b) job satisfaction, and negatively related to c) employee stress.

The effects of interest that are thought to be produced by the interaction of organizational justice and transformational leadership are the basis for the third hypothesis. Based on research by Bycio et al. (1995), Koh et al. (1995), Limsila & Ogunlana (2008), Cropanzano et al. (2007), Greenberg (1990), and Kumar et al. (2009), there is evidence to support the notion that both organizational justice and transformational leadership can increase organizational commitment. It also been evidenced that both organizational justice and transformational leadership are positively associated with job satisfaction (Darshan & Shibru, 2011; Chontawan et al., 2012), and can decrease work stress (Flaschner et al., 2006; Munir & Nielsen, 2009). This hypothesis states that if both organizational justice and transformational leadership can increase commitment independently, then the effect should be stronger when both are

working concurrently. Similarly, when working together, organizational justice and transformational leadership should be able to produce greater job satisfaction and less work stress than just one or the other acting alone.

Hypotheses 3A-C: a) Organizational commitment and b) job satisfaction will be the highest, and c) employee stress will be the lowest when both organizational justice and transformational leadership qualities are perceived to be present, followed by the conditions in which either organizational justice or transformational leadership qualities are perceived to be present, followed by the condition in which neither organizational justice nor transformational leadership qualities are perceived to be present.

Method

This study examines how organizational justice (high versus low) and transformational leadership (high versus low) interacted to predict a) organizational commitment, b) job satisfaction, and c) employee stress. As such, this study employed a 2 x 2 experimental design.

Participants

The pool of 201 participants was made up of undergraduate and graduate students enrolled in Western Kentucky University. Their participation was voluntary, and they represented a variety of majors. There were no restrictions on ethnicity or gender, with the exclusionary criteria being that participants must be at least 18 years of age. Seventy-three percent of the participants identified as Caucasian. Of the final sample, 103 were female, and 73 were male, with ages ranging from 18 to 51, $M = 21.48$, $SD = 3.91$, across

all classes from freshman to graduate student. These participants were recruited via their classes at Western Kentucky University.

Materials

In addition to the demographic questions (see Appendix A), participants were presented with one of four scenarios and completed three outcome measures. Each scenario described a situation requiring the participant to imagine they work in an automobile manufacturing plant. The scenarios differed based on whether or not their supervisor in the scenario displayed transformational leadership qualities (i.e., one-on-one encouragement and feedback, motivation, etc.) and whether or not organizational justice was present (i.e., the supervisor in the scenario breaking the news of a temporary five percent pay decrease and then either explaining the reasoning and acting apologetic or not). Thus, there were four unique scenarios: (a) both high transformational leadership and high organizational justice (i.e., Hi-L, Hi-J; see Appendix B), (b) low transformational leadership and high organizational justice (i.e., Lo-L, Hi-J; see Appendix C), (c) high transformational leadership and low organizational justice (i.e., Hi-L, Lo-J; see Appendix D), and (d) both low transformational leadership and low organizational justice (i.e., Lo-L, Lo-J; see Appendix E).

Job satisfaction. Job satisfaction was measured using the Job Satisfaction Sub-Scale, created by Cammann, Fichman, Jenkins, and Klesh (1983; see Appendix F). This scale consists of three questions that assess the extent to which the individual likes their job, such as “In general, I like working here.” Responses were obtained on a 7-point Likert scale where 1 = strongly disagree and 7 = strongly agree.

Employee stress. Work stress was assessed by examining work frustration with the Frustration With Work subscale created by Peters, O'Connor, and Rudolf (1980; see Appendix G). This scale consists of three items that assess the extent to which the individual is frustrated with their job. The first item on this scale was slightly altered to make it more appropriate for our purposes. The original item read: "Trying to get this job done was a very frustrating experience," whereas the revised item reads: "Working in this job is a very frustrating experience." The rationale for this adjustment was that the original item referred to a specific task or job, whereas the revised item gets at the frustration level for the position as a whole, making it more relevant to the current study. Responses were obtained on a 7-point Likert scale where 1 = strongly disagree and 7 = strongly agree.

Organizational commitment. Organizational commitment was assessed via the Affective, Normative, and Continuance Commitment Scale by Meyer and Allen (1997; see Appendix H). This scale consists of 18 items that measure the extent to which an individual is committed affectively, normatively, and continually to their position and organization, such as "This organization deserves my loyalty." A slight adjustment was made to relevant items in these scales, such that anytime the organization was referred to as "my organization," the language was changed to "this organization." This was to ensure that the participant was thinking about the scenario carefully. Both the affective and normative commitment subscales contain six items, with the continuance commitment subscale being broken down further into two subscales of its own, the high sacrifice subscale, consisting of two items, and the lack of alternatives subscale,

consisting of four items. All results in this measure were obtained on a 7-point Likert scale, where 1 = strongly disagree and 7 = strongly agree.

Quality control and manipulation check items.

Two quality control items and two manipulation check items were developed in order to assess the care with which the participants were reading the scenarios (see Appendix I). These items helped inform the researcher whether each participant was attentive and understood each scenario as it was intended.

Procedure

The participants were voluntarily recruited through their classes at Western Kentucky University. Before beginning the study, the primary researcher read aloud a brief script (see Appendix J), instructing participants to place themselves in the shoes of the hypothetical blue-collar worker in the scenario and answer the questions based on how they believed they would think or feel in that situation. They were also given an informed consent document to review (see Appendix K) before being given their scenario and questionnaire. After reading the scenario on their survey, the participants answered the instruments just discussed, related to job satisfaction, organizational commitment, and job frustration. Participants were free to discontinue their participation in the survey at any time for any reason.

Results

Of the 201 participants who took part in the study, 23 were screened out due to failure to pass the quality control items put in place and 2 were screened out during the univariate outlier analysis, leaving a sample of 176. The univariate outlier analysis excluded cases that were more than two standard deviations from the mean.

In addition to the quality control items, there were two manipulation checks put in place in order to assess the whether the manipulation of the independent variables was having the desired effect. After creating two new dichotomous variables (i.e., high versus low transformational leadership and organizational justice), two independent samples *t*-tests were conducted. The newly created dichotomous variables acted as the grouping variables, with the manipulation check items as the dependent variables. Through this analysis, we were able to determine that there was a significant difference between high levels of leadership, $M = 5.25$, and low levels of leadership, $M = 2.30$, $t(174) = -13.73$, $p < .000$, as well as a significant difference between high levels of justice, $M = 5.00$, and low levels of justice, $M = 3.04$, $t(174) = -8.01$, $p < .000$.

To assess Hypotheses 1A-C and 2A-C, six independent sample *t*-tests were run, comparing each of the two dichotomous manipulated variables to one of the three outcome variables. In order to correct for the increase in Type I error that is caused by conducting multiple independent sample *t*-tests, a Bonferroni correction was used. This correction lowered the criterion of significance to .0083.

Table 1 contains the results for the three independent sample *t*-tests relevant to Hypotheses 1A-C. Each of these hypotheses assessed how organizational justice influenced ratings on one of the three outcome variables. The first row of Table 1 contains the results for organizational commitment in relation to organizational justice. In the conditions in which organizational justice was low, $M = 3.562$, average ratings were not significantly higher than the average ratings for conditions in which organizational justice was high, $M = 3.862$, $t(173) = -1.920$, $p = .057$. This indicates that Hypothesis 1A, the prediction that organizational commitment ratings would be significantly higher when

organizational justice was high as opposed to low, was not supported by these findings. Concerning the second row in Table 1, the mean job satisfaction ratings in which organizational justice was high, $M = 3.603$, were not found to be significantly higher than ratings in which organizational justice was low, $M = 4.172$, $t(174) = -2.591$, $p = .010$. This indicates that Hypothesis 1B, the prediction that ratings of job satisfaction would be higher when organizational justice was high as opposed to low, was not supported by these results. Finally, as illustrated in the third row in Table 1, average job stress ratings were not significantly lower when organizational justice was perceived to be high, $M = 4.245$, as opposed to low, $M = 4.651$, $t(173) = 2.384$, $p = .018$. Because the Bonferroni correction lowered the criterion of significance to .0083, this finding does not support Hypothesis 1C, the prediction that ratings of job stress would be lower when organizational justice was high as opposed to low.

Table 1
Effect of Organizational Justice on Organizational Commitment, Job Satisfaction, and Job Stress

Outcome Variable	<i>t</i>	<i>df</i>	Mean Difference	Std. Error Difference
Org. Commitment	-1.920	173	-.300	.156
Job Satisfaction	-2.591	174	-.569	.219
Job Stress	2.384	173	.406	.170

Note. A negative *t* value indicates higher values of the outcome variable were present in the high justice conditions, whereas a positive *t* value indicates lower values of the outcome variable were present in the high justice conditions. Org. Commitment = Organizational Commitment.

*Indicates the effect was significant at $p < .05$ (two-tailed) with a Bonferroni correction (i.e., $p < .0083$).

Table 2 displays the data collected from the three independent sample *t*-tests run to analyze Hypotheses 2A-C. Each of these hypotheses concerned the same three outcome variables as in Hypotheses 1A-C, this time in relation to transformational leadership. The first row of Table 2, average organizational commitment ratings, shows that the mean ratings for organizational commitment were significantly higher when transformational leadership was high, $M = 4.318$, as opposed to when transformational leadership was low, $M = 3.097$, $t(173) = -9.546$, $p < .000$. These results support Hypothesis 2A, the prediction that ratings of organizational commitment would be higher when transformational leadership was high as opposed to low. The second row of Table 2 shows results for the mean ratings of job satisfaction, which were significantly higher when transformational leadership was high, $M = 4.704$, as opposed to when transformational leadership was low, $M = 3.046$, $t(174) = -8.945$, $p < 0.00$. This result indicates that Hypothesis 2B, the prediction that ratings of job satisfaction would be higher when transformational leadership was high as opposed to low, was supported. The third row of Table 2 shows that the mean ratings of job stress were significantly lower when transformational leadership was high, $M = 3.893$, than when transformational leadership was low, $M = 5.011$, $t(173) = 7.404$, $p < .000$. This result supports Hypothesis 2C, the prediction that ratings of job stress would be lower when transformational leadership was high as opposed to low.

Table 2

Effect of Transformational Leadership on Organizational Commitment, Job Satisfaction, and Job Stress

Outcome Variable	<i>t</i>	<i>df</i>	Mean Difference	Std. Error Difference
Org. Commitment	-9.546*	173	-1.221	.127
Job Satisfaction	-8.945*	174	-1.658	.185
Job Stress	7.404*	173	1.117	.150

Note. A negative *t* value indicates higher values of the outcome variable were present in the high justice conditions, whereas a positive *t* value indicates lower values of the outcome variable were present in the high justice conditions. Org. Commitment = Organizational Commitment.

*Indicates the effect was significant at $p < .05$ (two-tailed) with a Bonferroni correction (i.e., $p < .0083$).

Hypotheses 3A-C were analyzed using one-way analysis of variance (ANOVA). These hypotheses related to the combination of organizational justice and transformational leadership, and how their combined levels would influence the three outcome variables. The results for Hypothesis 3A showed a significant main effect for organizational commitment, $F(3,171) = 33.754, p < .000$. The first row of Table 3 displays the mean organizational commitment ratings for each condition. Post hoc indicated that the condition in which both transformational leadership and organizational justice were high, $M = 4.541$, was not significantly different from the condition in which transformational leadership was high but organizational justice was low, $M = 4.106$. However, both of these conditions were shown to be significantly higher than both the condition in which transformational leadership was low, but organizational justice was high, and the condition in which transformational leadership was low and organizational

justice was low, $M = 3.199$ and $M = 2.993$, respectively. This indicates that there was a main effect for transformational leadership. Notably, however, the mean ratings for organizational commitment were in the rank order predicted by the researchers. Thus, Hypothesis 3A, the prediction that the condition in which both transformational leadership and organizational justice were high would result in the highest organizational commitment ratings, followed by the mixed conditions, followed by the condition in which both transformational leadership and organizational justice were low, was only partially supported.

Table 3

Condition Means for Organizational Commitment, Job Satisfaction, and Job Stress

	Lo-L, Lo-J	Lo-L, Hi-J	Hi-L, Lo-J	Hi-L, Hi-J
Outcome Variable				
Org. Commitment	2.993	3.199	4.106	4.541
Job Satisfaction	2.782	3.303	4.369	5.062
Job Stress	3.720	4.059	4.757	4.271

Note: Org. Commitment = Organizational Commitment.

The results for Hypothesis 3B showed a significant main effect for job satisfaction, $F(3,172) = 31.983$, $p < .000$. The second row of Table 3 displays the mean job satisfaction ratings in relation to transformational leadership and organizational justice conditions. Post hoc results showed that the condition in which both transformational leadership and organizational justice are high, $M = 5.062$, was significantly higher than all of the other conditions. Unexpectedly, the condition in which

transformational leadership was high but organizational justice was low, $M = 4.369$, was also significantly higher than the condition in which transformational leadership was low but organizational justice was high, $M = 3.303$, contradicting the researchers prediction that the two conditions would be statistically similar. In addition, the low transformational leadership, high organizational justice condition was not statistically different from the condition in which both transformational leadership and organizational justice were low, $M = 2.782$. However, once again, the mean job satisfaction ratings were in the order predicted by the researchers. These results indicate that Hypothesis 3B, the prediction that the condition in which high transformational leadership and high organizational justice would result in the highest job satisfaction scores, that the mixed conditions would be statistically similar, and the condition in which both transformational leadership and organizational justice were low would have the lowest scores, was only partially supported by the data.

The results for Hypothesis 3C showed that there is also a significant main effect for job stress, $F(3,171) = 21.835, p < .000$. The third row of Table 3 shows the mean ratings of job stress in relation to transformational leadership and organizational justice conditions. The findings reveal that job stress was reported to be the highest in the condition in which transformational leadership is high and organizational justice was low, $M = 4.757$, and the condition in which both transformational leadership and organizational justice were high, $M = 4.271$, which did not statistically differ. In addition, the condition in which transformational leadership was low but organizational justice was high, $M = 4.059$, and the condition in which both transformational leadership and organizational justice were low, $M = 3.720$, were significantly lower than the two high

transformational leadership conditions, but not statistically different from each other. Therefore, these findings do not support the researchers' hypothesis that the high transformational leadership, high organizational justice condition would result in the lowest ratings on job stress, that the mixed conditions would result in statistically similar ratings of job stress, and that the low transformational leadership, low organizational justice condition would have the highest job stress mean.

Discussion

After examining the results of the analysis and determining whether or not each individual hypothesis was supported by the data, it is important to interpret the meaning of these outcomes. The first set of Hypotheses, 1A-C, dealt with the impact that organizational justice would have on the three outcome variables, organizational commitment, job satisfaction, and job stress. Hypothesis 1A was not supported by these results, indicating that individuals in this study did not feel as though higher levels of organizational justice would make them feel more committed to their organization, contradicting the findings of Cropanzano et al. (2007), Greenberg (1990), and Kumar et al. (2009). This result could have been due to the hypothetical nature of study, making it harder for the students to imagine how high or low organizational justice would have affected their commitment levels to a hypothetical organization. This result could have also occurred if the manipulation of organizational justice within the study was not strong enough. Hypothesis 1B was also not supported by the results, indicating that high organizational justice does not make individuals report higher levels of satisfaction with their jobs. Once again, however, there is much more research that supports the idea that high organizational justice does indeed increase job satisfaction, as seen in the results of

the findings of Kumar et al. (2009) and Aslam et al. (2013). This could also be an indication that the manipulation of organizational justice in the scenarios was not strong enough. Finally, Hypothesis 1C was not supported either, indicating that individuals did not report lower levels of stress in organizations with high justice. Due to the amount of research that supports the idea that organizational justice would lower stress (Colquitt & Judge, 2004; Maharee-Lawler et al., 2012), it is likely that our result was once again victim of either the hypothetical nature of the study, or the lack of a strong enough manipulation of organizational justice.

Hypotheses 2A-C dealt with the same three outcome variables of organizational commitment, job satisfaction, and job stress, but in relation to transformational leadership. Each of the three hypotheses was supported by the results. Hypothesis 2A, stating that individuals would report feeling more committed to their organization when their leader was displaying high levels of transformational leadership, was found to be supported here, as it was by the research of Bycio et al. (1995), Koh et al. (1995), and Limsila and Ogunlana (2008). Similarly, Hypothesis 2B, predicting that individuals would report feeling more satisfied with their job in instances in which their leader was more transformational than not, was also supported by these results, agreeing with the findings of Chontawan et al. (2012) and Darshan and Shibru (2011). Finally, Hypothesis 2C, the idea that job stress would be lower when an individual had a leader that displayed transformational behaviors, was supported as well, parallel to the results of research from Gill et al. (2006) and Nielsen & Munir (2009). These findings show that transformational leadership indeed had a noticeable impact on all three of the outcome variables.

Hypotheses 3A-C had to do with the interplay between transformational leadership and organizational justice, and how the outcome variables would be affected when both were high, only one or the other was high, or when neither was high. Concerning Hypothesis 3A, the prediction that when both transformational leadership and organizational justice were high, organizational commitment would be at its highest, was not supported by these results. Instead, the results indicated that levels of organizational commitment when both transformational leadership and organizational commitment were high were statistically similar to when transformational leadership was high but organizational commitment was low. This finding may reveal that transformational leadership has more of an impact on organizational commitment than organizational justice does, as both conditions in which leadership was high were significantly higher than the conditions in which leadership was low. Despite the hypothesis not being supported here, a main effect for transformational leadership was discovered, meaning that when transformational leadership was high, individuals felt more committed than when transformational leadership was low. Thus, perhaps it is more important when considering how committed an individual is to maintain transformational leadership behaviors than it is to maintain organizationally just procedures.

Hypothesis 3B dealt with job satisfaction in relation to transformational leadership and organizational justice. It was found that when both transformational leadership and organizational justice were high, ratings of job satisfaction were significantly higher than every other level. This supports the idea that in the case of job satisfaction, both transformational leadership and organizational justice work together to make the individual more satisfied with their job than if only transformational leadership

or only organizational justice was high. However, the other facet of Hypothesis 3B was not supported; the prediction that when transformational leadership was high but organizational justice was low, ratings of job satisfaction would be statistically similar to ratings of job satisfaction, when transformational leadership was low but organizational justice was high was not supported. Instead, it was found that when transformational leadership was high but organizational justice was low, ratings of job satisfaction were significantly higher than they were when transformational leadership was low but organizational justice was high. This finding could indicate that transformational leadership is more important than organizational justice in regards to job satisfaction, that individuals base their satisfaction more heavily on whether or not their leader is transformational than if their organizational is just.

Finally, Hypothesis 3C, the prediction that ratings of job stress would be at their lowest when both transformational leadership and organizational justice were high, was not supported. Neither was the prediction that when transformational leadership was high but organizational justice was low, ratings of job stress would be statistically similar to ratings of job stress when transformational leadership was low but organizational justice was high. This is an interesting finding because, as seen in Hypotheses 1A through 2C, both transformational leadership and organizational justice led to lower reports of job stress individually. This result indicates that when both transformational leadership and organizational justice are high, reports of stress are actually higher than if they were both low. Thus, results suggest that acting independently, both transformational leadership and organizational justice were effective at mediating stress levels at work, yet when combined they may create an environment that lends itself to higher levels of stress. This

could be due to the highly structured nature of an environment in which both transformational leadership and organizational justice are high, or the idea that both constructs together create too much responsibility or pressure for one individual. Regardless, the results show that when both transformational leadership and organizational justice were high, stress levels were reported as higher.

Implications

What should a supervisor or manager draw from these results? How can the findings from this study be used to better a workplace? There are certainly various implications that can be gleaned from the information ascertained here, and most of it could be very useful in improving an organization's bottom line. Looking first at organizational commitment, we know from past research that in most cases, higher levels of organizational justice will result in higher levels of commitment in individuals in a workplace. Though the findings from this particular study did not support this, even though the means trend was in this direction, the amount of support given to the notion through prior research should be more than enough to convince any manager or supervisor that it is more helpful than hurtful to implement more just organizational policies. In addition, as shown by these results, higher levels of transformational leadership were linked to higher levels of organizational commitment from individuals. If possible, an individual in a supervisory role should aspire to be as transformational a leader as possible while simultaneously making the organizations policies as just and fair as they can. This is because, although the results indicated that combining high transformational leadership and high organizational justice was akin to high transformational leadership and low organizational justice, the rating for the combination

of high transformational leadership and high organizational justice was the highest, meaning that it would result in the highest levels of commitment. As addressed previously, higher levels of commitment can lead to increased attendance and performance, or at the very least the benefit of continued employment from individuals (Meyer & Herscovitch, 2001). These beneficial outcomes resulting from higher organizational commitment would in turn be beneficial to the organization, increasing productivity overall.

Evidenced by the results, higher levels of either organizational justice or transformational leadership may be linked to increased levels of job satisfaction in individuals. However, as was the case with organizational commitment, combining the two seems to yield the highest levels of satisfaction among individuals. If for whatever reason it is not feasible for a manager to maintain high levels of both transformational leadership and organizational justice, one or the other would serve as a good back up option, since the ratings were relatively close. However, if they are able to be both highly transformational and have highly just procedures, satisfaction levels will be as high as can be attained by the combination of the two. Research done by Kumar et al. (2009) shows that individuals that experience higher levels of satisfaction in their jobs are less likely to leave their current jobs, thereby experiencing increased organizational commitment, which may elicit the same benefits, such as increased productivity and higher attendance. When considering their role, an individual in a supervisory or management position should do what they can to ensure that those below them are as satisfied as can be attained within reason, as increased satisfaction may benefit the organization's bottom line as well as maintain a more positive and happy workforce.

Both transformational leadership and organizational justice had independent, positive effects on job stress, as they both led to lower reports of stress when they were high. However, when combining the two, there were unexpected results. Because the results indicated that combining high transformational leadership and high organizational justice would result in higher ratings of job stress, a finding that does not seem to make sense, more research should be done on this topic before any practical change be implemented. The practice of mixing both transformational leadership and organizationally just policies seems as though it would help lower employee stress, based on the findings from the two individual construct's effects on stress. Therefore, further research is certainly warranted in order to discover how best to combine the two to affect employee stress on a practical level.

The implication most readily drawn from these results should be that each workplace is unique and it may be up to the supervisor to see which combination of transformational leadership and organizational justice works best for their specific organization, and in general, high levels of at least one of the variables is important when it comes to organizational commitment, job satisfaction, and job stress.

Limitations and Further Research

There were several limitations present in this study, which may have impacted the results. First, it is important to note that the goal of this study was to examine outcomes in a workplace setting; the sample used was drawn from a student population, and was a non-probability sample. Whereas many of the students may have had prior work experience, they may not be fully representative of the general workforce due to their age and limited work experience. Another limitation was the hypothetical nature of the

situations presented in the study. A study such as this may suffer from the fact that individuals have to imagine how they would respond in a hypothetical situation that they may have never experienced before, and therefore the accuracy of their responses may be of concern. The final limitation addresses the strength of the manipulations used. Whereas overall differences between conditions were identified (e.g., high versus low organizational justice), many individuals did not correctly answer these items (e.g., a person in a high organizational justice condition not indicating agreement with an item asking whether the situation described in the scenario had high organizational justice; see Table 4). Thus, future research in this area may consider a stronger manipulation in order to avoid this problem.

Table 4

Percentage of Respondents Passing the Manipulation Checks

Condition	Leadership Manipulation Check	Justice Manipulation Check
Hi-L, Hi-J	91%	86%
Hi-L, Lo-J	63%	41%
Lo-L, Hi-J	73%	43%
Lo-L, Lo-J	93%	79%

Future research is certainly warranted based on the findings of this study. Of special interest is the way in which transformational leadership and organizational justice interact with one another. There were several predictions made by the researchers that were not supported by the results, the majority of which had to do with the predicted similarity between the Hi-L, Lo-J and Lo-L, Hi-J conditions. For each outcome variable,

these two conditions were not considered similar, indicating that there is in fact a difference in how high transformational justice and low organizational justice or low transformational justice and high organizational justice work together to influence outcomes such as commitment, job satisfaction, and job stress. In addition, the job stress results merit additional research, as it seems strange that two constructs which help lower stress on their own would cause it to increase when combined in the fashion in which they were. Regardless, this study helped push forward the understanding of how leadership and justice in the workplace work together to influence individuals, and provided new direction for further investigation into this topic.

Appendix A

Demographic Questions

What is your gender? (circle one) Male Female

What is your age? _____

What is your ethnicity? (circle one)

- | | |
|---------------------------|-----------------------------|
| White | Native American or American |
| Hispanic or Latino | Indian |
| Black or African American | Asian or Pacific Islander |
| | Other |

What is your year at WKU? (circle one)

- Freshman
- Sophomore
- Junior
- Senior
- Graduate Student

What is your major? _____

Appendix B

Study Scenario #1 (High Transformational Leadership and High Organizational Justice)

a. Information About Your Supervisor

Imagine you work on the assembly line in an automobile manufacturing plant. You and your co-workers have frequent contact with your supervisor, who regularly spends time on the floor with the assembly line workers. He spends this time giving one on one feedback to you and your co-workers, encouraging the workers as a group, and making clear the connection between the work that you do to the overall success and mission of the company.

b. Recent Changes in the Organization

On Wednesday, your supervisor calls a meeting with the assembly line workers to explain that there will be a temporary, 5% decrease in pay. He explains that this is due to financial stresses in the organization, that he has spoken with upper management and this has been determined to be the best course of action. He apologizes, reiterates the temporary nature of the pay decrease and encourages anyone with questions or concerns to please come see him personally anytime, sacrificing his time.

Appendix C

Study Scenario #2 (Low Transformational Leadership and High Organizational Justice)

a. Information About Your Supervisor

Imagine you work on the assembly line in an automobile manufacturing plant. You and your co-workers have little contact with your supervisor, who typically only appears once in a while, or when he is required to be present or interact with the assembly line workers.

b. Recent Changes in the Organization

On Wednesday, your supervisor calls a meeting with the assembly line workers to explain that there will be a temporary, 5% decrease in pay. He explains that this is due to financial stresses in the organization, that he has spoken with upper management and this has been determined to be the best course of action. He apologizes, reiterates the temporary nature of the pay decrease and encourages anyone with questions or concerns to please come see him personally anytime, sacrificing his time.

Appendix D

Study Scenario #3 (High Transformational Leadership and Low Organizational Justice)

a. Information About Your Supervisor

Imagine you work on the assembly line in an automobile manufacturing plant. You and your co-workers have frequent contact with your supervisor, who regularly spends time on the floor with the assembly line workers. He spends this time giving one on one feedback to you and your co-workers, encouraging the workers as a group, and making clear the connection between the work that you do to the overall success and mission of the company.

b. Recent Changes in the Organization

On Wednesday, your supervisor calls a meeting with the assembly line workers to explain that there will be a temporary, 5% decrease in pay. He gives you and your co-workers no explanation or information related to the decision and tells you all that if there are any questions or complaints to speak with Human Resources.

Appendix E

Study Scenario #4 (Low Transformational Leadership and Low Organizational Justice)

a. Information About Your Supervisor

Imagine you work on the assembly line in an automobile manufacturing plant. You and your co-workers have little contact with your supervisor, who typically only appears once in a while, or when he is required to be present or interact with the assembly line workers.

b. Recent Changes in the Organization

On Wednesday, your supervisor calls a meeting with the assembly line workers to explain that there will be a temporary, 5% decrease in pay. He gives you and your co-workers no explanation or information related to the decision and tells you all that if there are any questions or complaints to speak with Human Resources.

Appendix F

Job Satisfaction Scale

1. All in all, I am satisfied with my job.
2. In general, I don't like my job. (R)
3. In general, I like working here.

Note. (R) denotes reverse coding.

Appendix G

Frustration With Work Scale

1. Working in this job is a very frustrating experience.
2. Being frustrated comes with this job.
3. Overall, I experienced very little frustration on this job. (R)

Note. (R) denotes reverse coding.

Appendix H

Affective, Normative and Continuance Commitment Scales

Affective commitment items:

1. I would be very happy to spend the rest of my career with this organization
2. I really feel as if this organization's problems are my own
3. I do not feel like "part of the family" at my organization (R)
4. I do not feel "emotionally attached" to this organization (R)
5. This organization has a great deal of personal meaning for me
6. I do not feel a strong sense of belonging to this organization (R)

Note. (R) denotes reverse coding.

Normative commitment items:

7. I do not feel any obligation to remain with this employer (R)
8. Even if it were to my advantage, I do not feel it would be right to leave this organization now
9. I would feel guilty if I left this organization now
10. This organization deserves my loyalty
11. I would not leave this organization right now because I have a sense of obligation to the people in it
12. I owe a great deal to this organization

Note. (R) denotes reverse coding.

Continuance commitment items:

13. It would be very hard for me to leave this organization right now, even if I wanted to

14. Too much in my life would be disrupted if I decided I wanted to leave this organization now

15. Right now staying with this organization is a matter of necessity as much as desire

16. I feel that I have too few options to consider leaving this organization

17. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives

18. One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice - another organization may not match the overall benefits that I have here

Appendix I

Quality Control and Manipulation Check Items

Instructions: Please answer the following two questions based on your careful reading of the scenario.

1. I see my supervisor often. (circle one)

a. Agree

b. Disagree

2. My supervisor made himself available for questions about the pay changes. (circle one)

a. Agree

b. Disagree

Instructions: Please rate the extent to which you agree or disagree with each of the following:

	Strongly Disagree			Strongly Agree			
1. The supervisor described in the scenario is a good leader.	1	2	3	4	5	6	7
2. My supervisor treated me fairly in the scenario.	1	2	3	4	5	6	7

Appendix J

Researcher Script

Thank you for participating in my study. Know that if at any time you decide that you no longer wish to participate in the study, you may choose to discontinue your involvement with the study.

In this study you will read a brief narrative about an automobile manufacturing plant, containing information about a supervisor in the plant and recent changes in the plant. Your task is to assume that you are the worker in the automobile plant and to respond to a series of questions as if you are the worker in the scenario. It is important that you carefully read the narrative so that you will know how to respond in the role as the assembly line worker.

Before you get to the narrative, you will be asked to complete a few demographic questions that ask your age, sex, race, major, and year at WKU. You should not put your name on this questionnaire, as your responses will be anonymous.

This research project is the basis for my master's thesis, which is required for me to graduate with my master's degree. The questionnaire should take approximately 15 minutes to complete, and please make sure you are paying close attention when selecting your answers.

Once again, first you will provide demographic information, then you will carefully read the narrative, and then you will respond to several questions as though you are the assembly line worker in the narrative.

What questions do you have? Again, thank you for your participation in this study.

Appendix K

Informed Consent

INFORMED CONSENT DOCUMENT

Project Title: JUSTICE AND LEADERSHIP EFFECTS ON WORK OUTCOMES

Primary Investigator:
Greg Kedenburg
WKU Department of Psychology

Faculty Mentor:
Dr. Amber Schroeder
WKU Department of Psychology
270-745-2439

You are being asked to participate in a project conducted through Western Kentucky University. The University requires that you give your signed agreement to participate in this project.

The investigator will explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask him/her any questions you have to help you understand the project. A basic explanation of the project is written below. Please read this explanation and discuss with the researcher any questions you may have.

If you then decide to participate in the project, please sign on the last page of this form in the presence of the person who explained the project to you. You should be given a copy of this form to keep.

- 1. Nature and Purpose of the Project:** The purpose of this project is to gain a more thorough understanding of the nature of the interaction that leadership and justice in the workplace have on commitment, job satisfaction, and work stress.
- 2. Explanation of Procedures:** Participants will be given a scenario and will complete a questionnaire upon giving their consent to participate.
- 3. Discomfort and Risks:** There are no known or anticipated sources of discomfort or risk associated with this research study.
- 4. Benefits:** This study will yield information related to how leadership interacts with justice to affect different aspects of individuals in workplaces, namely commitment, job satisfaction, and work stress. This research will be beneficial in that it advances knowledge in the field of I/O Psychology.

5. Confidentiality: Participants will be asked to not put any identifying information on their questionnaire so that their answers can in no way be traced back to them. The data will be kept in a locked room once collected and will never be handled by anyone other than the primary investigator or co-investigator.

6. Refusal/Withdrawal: Refusal to participate in this study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.

You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

Signature of Participant

Date

Witness

Date

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT
THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
THE WESTERN KENTUCKY UNIVERSITY INSTITUTIONAL REVIEW BOARD
Paul Mooney, Human Protections Administrator
TELEPHONE: (270) 745-2129

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