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Examining Retaliatory Responses to Justice Violations and Recovery Attempts in Teams

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We examine the effect of supervisor injustice directed toward 1 team member and argue not only that the violated member will retaliate against the supervisor but that team members will band together as a collective in order to retaliate. However, we argue that effects depend on which member is violated, such that violating a strategic core member will result in greater retaliation. We then test the effect of a supervisor recovery attempt, hypothesizing that a recovery will negatively impact retaliation and that the coreness of the violated member moderates this effect, such that it is more important to recover a core member. We test our hypotheses utilizing 64 teams engaged in a command-and-control simulation. Results generally support our hypotheses for retaliation in the form of fewer supervisor-directed organizational citizenship behaviors but are less supportive for retaliation in the form of lower supervisor performance evaluations.

Keywords: team injustice, strategic core theory, supervisor-directed retaliation

Employees are aware of whether they are treated fairly at work; any violation of those perceptions acts "like a corrosive solvent that dissolve[s] bonds within the community" (Cropanzano, Bowen, & Gilliland, 2007, p. 34). Unfair treatment is linked with lower levels of employee performance, trust, commitment, and satisfaction (see Colquitt, Conlon, Wesson, Porter, & Ng, 2001) and may motivate victims to sanction the offender to "get even," a phenomenon termed retributive justice (Skarlicki, Ellard, & Kelln, 1998).

In addition to being aware of their own justice perceptions, employees are aware of how their coworkers are treated (Colquitt, 2004; Skarlicki & Kulik, 2004). This is particularly true in teams, where frequent interactions among team members result in intensive social comparisons (Colquitt, 2004). We focus on action teams, in which members possess specific areas of expertise and work closely together over a fixed period of time, because their high task and outcome interdependence makes them sensitive to issues of fairness within the team (Colquitt, 2004; Degoey, 2000; Roberson & Colquitt, 2005). We also focus on supervisor unfairness, given that supervisors have a direct line of authority over employees and are the most obvious source of organizational justice perceptions (Rupp & Cropanzano, 2002).

We argue that an injustice toward a team member may affect not only that team member's behaviors but also the behaviors of his or her teammates. Theories of third-party justice (e.g., Brockner, 1990; Skarlicki & Kulik, 2004) and emotional contagion (Hatfield, Cacioppo, & Rapson, 1994) suggest that injustice will trigger a retaliatory reaction from teammates (Bartel & Saavedra, 2000), who will band together to get even with a transgressor or to "punish the offender for unwarranted and malicious acts" (Mitchell & Ambrose, 2007, p. 1160). We expect that violated team members and their teammates will retaliate by withholding supervisor-directed organizational citizenship behaviors (OCBs) and giving the supervisor undeserved lower performance evaluations.

We then argue that the degree of retaliation is largely dependent on which team member is treated unfairly. Strategic core theory suggests that certain roles are more "core" to the team than others because they encounter a greater number of the team's problems and are more central to the team's workflow network (Humphrey, Morgeson, & Mannor, 2009). Thus, the effects of supervisor unfairness toward a core member are more likely to spread through the team, leading teammates to perceive inequity and sanction the offender for the violation.

Strategic core theory also suggests that the supervisor's attempts to recover from committing an injustice might be differentially effective based on the team member's role position. We integrate

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tenets of the theories described above with recent research on recovery from injustices (e.g., Liao, 2007; Reb, Goldman, Kray, & Cropanzano, 2006; Shaw, Wild, & Colquitt, 2003) to examine the effectiveness of supervisor attempts to "right their wrongs." As with the violation, a recovery can elicit emotional and behavioral reactions within the team, reducing retaliation; an effect that will be stronger when the violated member is in a core role.

We contribute to the literature on team-level justice by applying individual-level theories of retaliation and recovery to examine whether teams react to injustice in an isomorphic fashion. However, we introduce theories unique to the team level to build our arguments. By applying theories of third party justice, emotional contagion, and the strategic core, we highlight the advantages of taking a role perspective (e.g., Hackman, 1990; Katz & Kahn, 1978) to understand team responses to injustice. To our knowledge, this study is the first to apply strategic core theory to understand justice in teams. We also extend our understanding of the interplay among justice, affect, and social dynamics in teams, focusing on issues "largely missing" from the literature (van Knippenberg, van Knippenberg, & De Cremer, 2007, p. 192) in order to move the study of fairness in teams beyond issues such as the emergence of a shared justice climate (Degoey, 2000; Mossholder, Bennett, & Martin, 1998; Naumann & Bennett, 2000; Roberson, 2006; Roberson & Colquitt, 2005; Roberson & Williamson, 2012; Rupp, Bashshur, & Liao, 2007a, 2007b).

Supervisor-Directed Retaliation

A supervisor may violate an employee's sense of distributive, procedural, or interactional justice in many ways. Although these perceptions differ (see Colquitt et al., 2001), each is linked with retaliatory behaviors (e.g., Skarlicki & Folger, 1997; Skarlicki, Folger, & Tesluk, 1999).[1] Employees experiencing a justice violation may retaliate against the transgressor (e.g., Aquino, Tripp, & Bies, 2006; Skarlicki & Folger, 2004; Thau, Aquino, & Wittek, 2007; Tripp, Bies, & Aquino, 2007). Skarlicki et al. (1998) called this *retributive justice* and noted that "when victims or observers are made aware that a harmdoer is responsible for an injustice, they are motivated to sanction the offender for the behavior" (p. 121). Retaliation occurs because the victim perceives the transgressor as having violated moral and/or social norms and therefore feels justified to engage in retaliatory behavior to restore moral order (Skarlicki, Barclay, & Pugh, 2008). Retaliation is particularly likely when there are status differences between two parties. Lower status individuals may experience a greater need to protect themselves against unfair events in order to minimize status deprivation (e.g., Aquino, Galperin, & Bennett, 2004; Aquino et al., 2006; Baumeister, Smart, & Boden, 1996; Daly & Wilson, 1988).

Researchers identify two forms of retaliation, indirect and direct (Skarlicki & Folger, 1997). Indirect forms of retaliation (e.g., withholding OCBs, pretending not to hear a supervisor's request to complete a task) are most likely following a supervisor-perpetrated justice violation, given that direct forms of retaliation (e.g., talking back) could result in more severe consequences (e.g., Greenberg & Scott, 1996; Hollinger & Clark, 1983; Homans, 1961; Skarlicki & Folger, 1997). When the offender is a supervisor, victims are likely to respond by indirectly "taking out" their anger, as opposed to resorting to direct confrontations or retaliation directed at the entire organization (Choi, 2008; Masterson, Lewis, Goldman, & Taylor, 2000; Rupp & Cropanzano, 2002). Indirect forms of retaliation are lower risk than direct retaliation. However, they are "not less retaliatory (than direct forms) because they are subtle and nuanced" (Skarlicki & Folger, 1997, p. 439). Examining indirect retaliation fits "with a nuanced approach to describing subtle instances of workplace aggression" (Skarlicki & Folger, 1997, p. 440).

We examine two forms of indirect retaliation: withholding supervisor-directed OCBs and providing lower performance evaluations. OCBs are "organizationally beneficial behaviors and gestures than can neither be enforced on the basis of formal role obligations nor elicited by contractual guarantee . . . informal contributions that participants can choose to proffer or withhold without regard to considerations of sanction or formal incentives" (Organ, 1990, p. 46). Research that has examined supervisor-directed OCBs has focused on help directed specifically toward the supervisor (e.g., helping the supervisor when not asked; Choi, 2008).

With regard to the second form of retaliation, victims often punish transgressors via performance evaluations (Kremer & Stephens, 1983; Ramirez, Bryant, & Zillmann, 1982; Tyler & Caine, 1981). Jones and Skarlicki (2005) examined the extent to which participants retaliated against unjust experimenters using performance evaluations. Participants believed that "a low rating could have a negative impact on the experimenter, providing them with an opportunity to retaliate for perceived unfairness" (Jones & Skarlicki, 2005, p. 366). Thus, we propose that giving a supervisor an *undeserved* negative performance evaluation represents retaliatory behavior. This behavior is a more severe form of indirect retaliation than withholding OCBs. Performance evaluations typically have real consequences for a supervisor's future with an organization in terms of pay and promotion decisions, job assignments, and termination, whereas withholding OCBs is more of an inconvenience for supervisors.

Consistent with previous research concerning the effects of injustice on retaliation (e.g., Aquino et al., 2006), we expect that a violated team member will engage in both forms of retaliation following a violation by a supervisor, leading to the following hypothesis:

> *Hypothesis 1:* A violated team member will individually (a) engage in fewer supervisor-directed OCBs and (b) give a lower supervisor performance evaluation than a nonviolated team member in the same role position.

Up to this point, we have focused on individuals as victims of injustice. However, the mistreatment of an individual can have ripple effects in social groups, a phenomenon termed *third party injustice* (Folger, 1998, 2001; Skarlicki & Kulik, 2004; Turillo, Folger, Lavelle, Umphress, & Gee, 2002). Third parties form justice judgments about and react to the treatment of others (e.g., Brockner, 1990; Brockner, DeWitt, Grover, & Reed, 1990; Leung,

[1] Ambrose and Schminke (2009) argue that "unless a clear theoretical basis exists for making differential predictions across different subtypes of justice, researchers should assess overall justice instead," (p. 498). Thus, for the purpose of this study we examine global justice violations, where a violation includes a distributive, procedural, and interactional justice component.

Chiu, & Au, 1993; Skarlicki et al., 1998). According to the deonance model of fairness, third parties may respond with negative emotions such as moral outrage due to the moral concerns inherent in violations of the way a person "should be treated" (Folger, 2001). As noted by Turillo et al. (2002), "people sometimes seek to punish the moral transgressions of others . . . not only without any instrumental self-benefit but also (at times) despite burdens imposed" (p. 839). For example, Turillo et al. (2002) found that individuals sanctioned those who had treated others unfairly and willingly sacrificed their own gains even if they did not know the victim. Like the violated individual, third parties seek to punish the transgressor to restore their sense of balance.

Because teams represent a collection of social connections linking members together (e.g., Ellis, Bell, Ployhart, Hollenbeck, & Ilgen, 2005; Pearsall & Ellis, 2006), teammates represent potential third parties (Skarlicki & Kulik, 2004). Injustice elicits negative emotional reactions (e.g., Bies & Tripp, 1996) that spread within the team through emotional contagion (Degoey, 2000). Emotional contagion is a type of social influence that occurs both consciously and subconsciously when an individual or group influences the emotions or behavior of another individual or group (Barsade, 2002). Evidence suggests that emotional contagion occurs through a very fast process of automatic, subconscious mimicry (Barsade, 2002; Hatfield, Cacioppo, & Rapson, 1992, 1994), which originates in an innate human tendency to imitate others' behaviors (e.g., Davis, 1985; Levenson, 1996). Mimicking others' nonverbal behaviors results in experiencing the emotion itself (Duclos et al., 1989). Moreover, as members tune in to others' emotional states, this information acts as a heuristic for their own feelings (Barsade, 2002). Through these mechanisms, perceptions of justice tend to converge (Degoey, 2000).

Further, group members often evaluate the implication of significant events for the group as a whole, rather than for the self (Mackie, Smith, & Ray, 2008; E. R. Smith, Seger, & Mackie, 2007) and "may define the experience as collective and shared and the situation as group based" (van Zomeren, Spears, Fischer, & Leach, 2004, p. 650). As teams attempt to make sense of the violation, their appraisal will lead to collective action (Degoey, 2000; Mackie, Devos, & Smith, 2000), such as boycotting (cf. Skarlicki & Kulik, 2004). This is especially likely in interdependent teams (e.g., action teams), where members engage in high levels of coordination, work in the same physical location, and may have a "we're in this together" attitude. According to Hollenbeck, Beersma, and Schouten (2012), action teams have relatively high skill differentiation and low authority differentiation, factors that increase coordination and communication and likely set the stage for collective appraisal and contagion. We therefore hypothesize as follows:

> *Hypothesis 2:* Third-party teammates of a violated team member will collectively (a) engage in fewer supervisor-directed OCBs and (b) give lower supervisor performance evaluations than third-party teammates of a nonviolated team member.

The Role of the Strategic Core

Retaliation likely depends on which team member is violated. Strategic core theory (SCT; Humphrey et al., 2009) suggests that some roles are more critical—or "core"—than others and are "more tightly linked to the overall performance of the team than are other roles" (Humphrey et al., 2009, p. 49). Such roles are more core because these individuals (a) encounter more problems that must be overcome in the team, (b) have greater exposure to team tasks, and (c) are more central to the workflow of the team. Core role holders are defined strictly by role position, not by informal position or social status. SCT is especially applicable to teams with high levels of skill differentiation and low authority differentiation (see Hollenbeck et al., 2012) and is therefore particularly relevant for action teams (Humphrey et al., 2009).

SCT is useful for our understanding of injustice from the violated team member's perspective because it suggests a basis for team member comparisons among different role holders' inputs and outcomes. From an equity theory (Adams, 1963, 1965) perspective, the core member will compare the ratio of his or her inputs to outcomes with those of the members of the team. A core member will be particularly sensitive to disruptions of his or her equity ratio, because he or she contributes more to the team than other members but generally receives similar outcomes. Inequity perceptions can illicit an emotional reaction toward the transgressor and instill a desire for retaliation (Folger & Cropanzano, 1998). Thus, we hypothesize as follows:

> *Hypothesis 3:* A violated core team member will individually (a) engage in fewer supervisor-directed OCBs and (b) give a lower supervisor performance evaluation than a violated noncore team member.

We expect that violations directed at a core team member will also have a greater effect on the overall team for two reasons. First, from a network perspective, team members interact more frequently with core members who are central to the team's workflow. As such, transmission of justice cues through cognitive and emotional channels should occur quickly (Degoey, 2000). Roberson and Colquitt (2005) argued that when members interact repeatedly, "such network structures may increase the accuracy with which team members perceive each other's justice perceptions" (p. 597). Dense communication patterns between the core member and other members spread justice cues throughout the team (Roberson & Williamson, 2012), and research suggests that the degree to which individuals interact more frequently predicts the homogeneity of justice judgments (Degoey, 2000).

Second, third party justice theories suggest that individuals are sensitive to the equity ratios of others (e.g., Skarlicki et al., 1998). The core member provides greater inputs on behalf of the team and encounters more of the problems that need to be addressed. SCT emphasizes that organizations should invest heavily in core role holders, as they contribute more to team performance. Therefore, in line with SCT, a violation of a core member represents a more severe "skew" to the team's overall equity ratio. Members compare their input–outcome ratios to others within their work group, and others should receive the proper ratio of return (i.e., rewards) from their investments (Scandura, 1999). Teams often experience group-based anger and engage in collective action when they perceive that the group as a whole has suffered an injustice (e.g., Dubé-Simard & Guimond, 1986; Kelly & Breinlinger, 1995; van Zomeren et al., 2004; van Zomeren, Spears, & Leach, 2008). Thus, third-party teammates will perceive justice violations against a

core team member more negatively and will be more likely to band together in retaliation, leading to the following hypothesis:

> *Hypothesis 4:* Third-party teammates of a violated core team member will collectively (a) engage in fewer supervisor-directed OCBs and (b) give lower supervisor performance evaluations than third-party teammates of a violated non-core team member.

The Influence of Recovery

Recovery is "an action carried out by an organization with the intention of creating in the mind of an aggrieved worker the judgment that the perceived injustice has been atoned for" (Reb et al., 2006, p. 34). Recoveries may be apologies, explanations (Shapiro, Buttner, & Barry, 1994; Shaw et al., 2003), or monetary compensation (Okimoto, 2008; Reb et al., 2006),[2] and they have positive effects on fairness perceptions and other attitudes (e.g., Liao, 2007; Shaw et al., 2003).

Recovery attempts help to restore a sense of fairness and reduce retaliatory behaviors for several reasons. First, recoveries rectify an equity imbalance, functioning as a valuable reward that can help to redistribute esteem or resources in an exchange relationship (Liao, 2007; Walster, Berscheid, & Walster, 1973). Thus, recoveries provide an attempt to problem solve and restore the outcome to which the violated party feels entitled or to provide an outcome of similar benefit (Liao, 2007; Mccoll-Kennedy & Sparks, 2003). Recoveries also demonstrate to the violated party that the transgressor feels empathy and concern for his or her feelings (Hart, Heskett, & Sasser, 1990). Demonstrating courtesy during recovery is effective (Tax, Brown, & Chandrashekaran, 1998) because fairness is largely determined by the degree to which an individual is treated with respect and dignity (Colquitt et al., 2001). Similarly, expressing remorse indicates that the transgressor feels regret and some degree of suffering, which can reduce perceptions that the mistreatment was intentional (Austin, Walster, & Utne, 1976; Schwartz, Kane, Joseph, & Tedeschi, 1978). As such, recoveries create positive emotions and help the violated party feel valued and important, targeting instrumental needs, belonging needs, social needs, and esteem needs (Cropanzano, Byrne, Bobocel, & Rupp, 2001; Reb et al., 2006). On the basis of the above arguments, we hypothesize as follows:

> *Hypothesis 5:* A violated team member that receives a recovery will individually (a) engage in greater supervisor-directed OCBs and (b) give a higher performance evaluation than a violated team member who does not receive a recovery.

Theories of third-party justice and contagion suggest that team members will collectively respond to a recovery of the violated member. Team members will tune in to the positive emotional states of their teammates and use this information to make sense of the supervisor's behavior. Just as third parties recognize and respond to an injustice directed toward another (Turillo et al., 2002), they should recognize and respond to the restoration of justice through collective interpretation as the "right thing to do" and through the rebalancing of the team's skewed equity ratio. These effects should be particularly pronounced within the team context, as research suggests that third-party reactions are influenced by the presence and response of *other* third parties. Bystanders influence each other by conveying their own understanding of an event (Darley & Latane, 1968; Skarlicki & Kulik, 2004), which results in shared reactions through discussion and consensus judgment (Degoey, 2000). For instance, layoff survivors' fairness perceptions are influenced by fairness reactions of fellow survivors with whom they had considerable interaction (Brockner, Grover, Reed, DeWitt, & O'Malley, 1987). Therefore, a recovery should result in a shared restoration of justice through collective interpretation, magnified by the positive reactions of other teammates. Further, members will expect the recovered member to work harder to restore the newly altered input–outcome ratio (Adams, 1963, 1965), thus benefitting the entire team. Because the restoration of fairness should reduce the team's motivation to engage in retaliatory behavior, we hypothesize the following:

> *Hypothesis 6:* When a violated team member receives a recovery, third-party teammates will collectively (a) engage in greater supervisor-directed OCBs and (b) give higher supervisor performance evaluations than when a violated team member does not receive a recovery.

We also propose an interaction between the role of the violated member and whether or not he or she receives a recovery. Because core team members' input–outcome ratios are significantly more imbalanced than non-core team members' input–outcome ratios following a violation, there is a greater opportunity for the supervisor to right the wrong and more room to move core team members into balance. Further, as a core member is more representative of the team through his or her central role position, the team is more likely to view the recovery as directed toward the entire team. Given the increased transmission speed of justice cues, the role of the violated member should determine the impact of the recovery at the individual and team levels. As a result, we hypothesize the following:

> *Hypothesis 7:* Following a recovery of the violated team member, a violated core team member will individually (a) engage in greater supervisor-directed OCBs and (b) give a higher supervisor performance evaluation than a violated non-core team member.

> *Hypothesis 8:* Following a recovery of the violated team member, third-party teammates will collectively (a) engage in greater supervisor-directed OCBs and (b) give higher supervisor performance evaluations when a core team member was violated and recovered than when a non-core team member was violated and recovered.

[2] Based on research which suggests that it is important to match the recovery type to the type of violation (P. H. Kim, Ferrin, Cooper, & Dirks, 2004; Reb et al., 2006; A. K. Smith, Bolton, & Wagner, 1999), we examine global recoveries which include distributive, procedural, and interactional components.

Method

Participants

Participants were 256 students enrolled in management courses at a large southwestern university, participating in exchange for extra credit, who were randomly assigned to 64 four-member teams. On average, 48.6% were male and 66.4% were Caucasian. Participants were 21 years of age on average. Teams were eligible for a cash prize based on their performance.

Task

Participants engaged in a modified version of the Distributed Dynamic Decision Making (DDD) Simulation (see Miller, Young, Kleinman, & Serfaty, 1998), a command-and-control simulation where team members monitor activity in a geographic region and defend it against invasion from unfriendly targets (e.g., Ellis, 2006; M. Johnson et al., 2006; Pearsall, Ellis, & Bell, 2010). The objective is to maximize the number of team points by identifying targets, determining whether these targets are unfriendly, and engaging unfriendly targets when they enter restricted zones. When targets enter the geographic zone, they are unidentified. Once they are identified by an AWACS plane, a tank, helicopter, or jet can engage them. If the vehicle has the correct level of power, the target can be disabled. In this study, teams faced four different types of targets: E, F, G, and H. Each target had a power of 0 (friendly), 1, 3, or 5. Approximating real action teams, the teams consisted of members who had no prior experience working together and came together for only a short time period.

Team Member Roles

Team members were given specific areas of responsibility and expertise, adapted from Ellis (2006). One member had four AWACS planes and knew that E targets were power level 0 (friendly), another had four tanks and knew that F targets were power level 5, another had four helicopters and knew that G targets were power level 3, and another had four jets and knew that H targets were power level 1.

Procedure

Participants were randomly assigned to one of the four roles, and teams were randomly assigned to one of five conditions: (a) control—no justice violation, no recovery; (b) core violation with no recovery; (c) core violation with a recovery; (d) non-core violation with no recovery; and (e) non-core violation with a recovery. Next, they were audio trained on the declarative and procedural knowledge necessary to complete the performance tasks for 15 min. Participants then engaged in a 30-min training task where they learned how to launch vehicles, learned to identify and engage enemy targets, and began working as a team without a specific area of expertise.

After the training task, teams performed performance task 1 (10 min). Prior to the task, each team member was given a sheet that illustrated his or her role (e.g., AWACS, tanks). The purpose of performance task 1 was to allow teams to understand their role structure and recognize which roles were more core with regard to performance. During all performance tasks, the experimenter left the room. Team members were told that it was important to verbally communicate freely with one another. It is important to note that, instead of being directly involved in the team's performance, the experimenter assumed the role of an external supervisor, training teams on how to complete tasks, explaining performance goals, and assigning duties.

Before they began performance task 1, teams were also informed that each team member would receive a lottery ticket for all three upcoming performance tasks if the total team score for each task was better than the 50th percentile. All teams were actually told that they earned lottery tickets, regardless of performance. They were also informed that each lottery ticket corresponded to a separate random $300 cash drawing. Therefore, team members had three separate opportunities to win $300 if they earned a lottery ticket for each of the performance tasks. Teams then began performance task 1, after which the experimenter returned and recorded the number of total team points accumulated. He or she then awarded lottery tickets for performance task 1, during which the justice violation occurred (see manipulation description below).

Next, teams performed performance task 2 (20 min). In the control and no recovery conditions, teams immediately began performance task 2. In the recovery conditions, the experimenter performed a justice recovery before starting performance task 2 (see manipulation description below). The purpose of performance task 2 was to allow team members to interact freely following a justice violation (and recovery in the recovery conditions) in order to maximize the potential for convergence and sense making. After this task, participants completed a questionnaire that included the manipulation check and demographic measures. Finally, the experimenter awarded lottery tickets to all team members for their performance during performance task 2. Teams then participated in performance task 3 (20 min). After performance task 3, the experimenter again awarded lottery tickets. Finally, behavioral measures of supervisor-directed OCBs and performance evaluations were collected.

The laboratory context allowed for (a) interpretations of causality, (b) a standardized violation and recovery, and (c) the ability to capture retaliation behavior, which tends to have a low base rate in organizational settings. Throughout the experiment, the experimenter acted as the sole authority figure. Similar to a supervisor in an organizational context, the experimenter in a laboratory setting is viewed as an authority figure and possesses comparable power (Donovan & Radosevich, 1998; Jones & Skarlicki, 2005; Umphress, Simmons, Boswell, & Triana, 2008; Wright, O'Leary-Kelly, Cortina, Klein, & Hollenbeck, 1994).

Manipulations

Justice violation. Ambrose and Schminke (2009) noted "unless a clear theoretical basis exists for making differential predictions across different subtypes of justice, researchers should assess overall justice instead" (p. 498). Thus, we chose to focus on *global justice violations*, or violations of all three types of justice (e.g., Colquitt, Scott, Judge, & Shaw, 2006; Greenberg, 1993; R. E. Johnson & Lord, 2010; Van den Bos, Wilke, Lind, & Vermunt, 1998). The justice violation occurred immediately after performance task 1. In the control condition, all team members received lottery tickets. In the other conditions, teams experienced a justice

violation. The experimenter distributed lottery tickets to all but one of the team members. The experimenters were trained to deliver the violation in a curt and dismissive fashion, saying, "It looks like you have scored better than the 50th percentile, so as promised, I have some $300 lottery tickets. But it appears that I only have three, so only three of you will get a ticket."

Coreness. We identified the team member in control of the AWACS planes (DM1) as the core member of the team and the team member in control of the jets (DM4) as the non-core member, consistent with past research (e.g., Pearsall & Ellis, 2006). DM1 was the only member who was capable of identifying the nature and power level of the targets. All other duties and responsibilities could be split up and completed by one or more of the other team members. As such, DM1 was responsible for a disproportionate number of tasks, had to handle a greater percentage of the team's problems, and was more central within the team's workflow. On the other hand, DM4 could only engage enemy targets with a power level of 1. The individual occupying this role overlapped completely with two other team members. Therefore, DM4 was responsible for the fewest tasks and the least number of problems, while holding the most peripheral position within the team's workflow network.

Recovery. We examine global recoveries in congruence with our focus on global justice violations. Previous research has suggested the importance of matching recovery attempts to the violation type (P. H. Kim, Ferrin, Cooper, & Dirks, 2004; Reb et al., 2006; A. K. Smith, Bolton, & Wagner, 1999). Distributive recovery attempts often involve monetary compensation (e.g., Okimoto, 2008), procedural recovery attempts often involve explanations (e.g., Liao, 2007), and interactional recovery attempts often involve apologies and courteous treatment (e.g., A. K. Smith et al., 1999). We examine a combination of all three—the experimenter politely apologized, explained why the injustice occurred, and offered monetary compensation as presented below:

> "I am so sorry. I realize how unfair it was that I didn't give you a lottery ticket for the lottery. The fact is, the professor in charge of this experiment was supposed to bring in tickets and he must have forgotten to bring enough today. So, I didn't have enough tickets for you to get one, so I had no option. But I have thought about it, and I feel really badly, so I am going to give you a dollar of my own to show you that I am trying my best to keep things fair. Again, I am really sorry about that."

Measures

Supervisor-directed OCB. Although research has typically used rating scales to measure OCBs, researchers have noted the importance of measuring overt behaviors (Masterson, 2001). Thus, we created a behavioral measure specifically for this study similar to the measure employed by Y. J. Kim, Van Dyne, and Spitzmuller (2011). At the end of performance task 3, team members were asked if they would be willing to complete a brief online survey at a later date as part of the experimenter's dissertation. Team members were told that this survey was voluntary and was not a required part of the experimental session. In addition, they were informed that completing the survey would not result in any sort of compensation but that their participation would really "help out" the experimenter. The team members were each then given a paper sign-up sheet where they could provide their name and e-mail address indicating their willingness to participate in the survey. This is similar to items in O'Reilly and Chatman's (1986) measure of extra-role performance (i.e., "I volunteer for tasks that are not required") and C. Smith, Organ, and Near's (1983) subfacet of altruism (i.e., "Volunteers for things that are not required"). Responses were coded dichotomously as 1 = signed up or 0 = did not sign up.

We examined withholding OCBs both at the individual level (i.e., the violated team member) and the team level (i.e., third-party teammates). The violated team member OCB measure was scored from 0 to 1 and had a mean of .60 with a standard deviation of .49. We calculated the third-party teammates' OCB measure by averaging teammate responses (excluding the violated team member), also ranging from 0 to 1 with a mean level of .70 and a standard deviation of .36. An ICC(1) of .44 and an ICC(2) of .70 suggested that these scores could be aggregated (see Bliese, 2000; LeBreton & Senter, 2008). Within-group agreement for OCBs was computed with the average deviation (AD) index, designed for calculations of agreement with only two categories (Burke & Dunlap, 2002). Acceptable agreement occurs when the proportion of individuals endorsing one category is less than or equal to .23 (i.e., 23%). We computed an AD index of .17 for supervisor-directed OCBs (using four-member teams in the control condition and three-member teams in all other conditions), further supporting aggregation to the team level.

Performance evaluations. We based our measure on studies that have used performance evaluations as a way to capture retaliatory behavior (Jones & Skarlicki, 2005; Kremer & Stephens, 1983; Ramirez et al., 1982). At the end of performance task 3, team members were given a performance evaluation form and a sealable envelope with the following instructions:

> Your answers will be used to evaluate the performance of the doctoral student that ran your session today. This will be one factor that determines the advancement of this candidate from Doctoral Assistant to Lab Director, so please answer honestly. Your answers will be kept confidential and will not be shown to the doctoral student experimenter. Please place your evaluation in the envelope provided and be sure to seal it.

Team members were told that the ratings would be given to the experimenter's supervisor, who would use the information when making promotion decisions. As past research has noted, the removal of rewards (e.g., not giving a promotion) is frequently used to measure retaliation (Kremer & Stephens, 1983). Team members rated the experimenter along two dimensions: punctuality and knowledge of the DDD (two factors that were equal across conditions). Items were rated on a 5-point rating scale from 1 (*extremely late*) to 5 (*on time or early*) for punctuality and from 1 (*knows nothing about the task*) to 5 (*knows everything about the task*) for knowledge of the DDD. As with OCBs we examined performance ratings at both the individual and the team level. Responses were averaged across both performance dimensions. For the violated team member, the mean was 4.82, with a standard deviation of .29. For the third-party teammates, responses were averaged to create a team-level (using three-member teams in all violation conditions) performance evaluation measure ($M = 4.88$, $SD = .12$). An ICC(1) of .08, an ICC(2) value of .21, and an r_{wg} value of .97 suggested that scores could be aggregated to the team level using the average of the four members' scores in the control

condition and the average of the three members' scores in all other conditions (Bliese, 2000; LeBreton & Senter, 2008).[3]

Results

Analyses for the violated team member were conducted at the individual level. All other analyses were conducted at the team level by aggregating the dependent variable of interest. Intercorrelations and descriptive statistics are reported in Table 1. Table 2 provides the means and standard deviations by condition. All hypotheses were tested using analyses of variance (ANOVA). Three experimenters were used in this study: two women and one man. Teams were more likely to engage in supervisor-directed OCBs and were less willing to give low performance evaluations to the female supervisors. We also found relationships between the experimenter dummy codes and the violated team member's OCBs and performance evaluations (see Table 1). Therefore, experimenter dummy codes were entered as covariates in all analyses.

Manipulation Checks

We performed manipulation checks using surveys and behavioral coding. Coded variables were based on videos of the 5 minutes following each manipulation and were coded by a research assistant and the first author. Coders were trained to recognize emotions, observing body language, verbal tone, and facial expression (e.g., Barsade, 2002; Bartel & Saavedra, 2000). Variables were coded at the individual level (i.e., each team member's mood) or at the team level (i.e., overall team mood) in correspondence with their level of analysis. Interrater reliability was computed using Shrout and Fleiss's (1979) ICC(3,1).

Justice violation manipulation. We checked the justice violation using a survey of justice perceptions and by coding team emotions. We expected the manipulation to result in reduced team justice, negative mood convergence (see Barsade, 2002), and increased negative team mood (e.g., Fox, Spector, & Miles, 2001; Weiss, Suckow, & Cropanzano, 1999).

Team-level justice perceptions. We compared perceptions of justice in teams with a violated member versus control teams, using an adapted four-item version of Ambrose and Schminke's (2009) Perceived Overall Justice Scale ($\alpha = .86$). All items were measured with a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item is "Overall, my team was treated fairly in this experiment." An ICC(1) of .10, an ICC(2) of .31, and an r_{wg} value of .86 suggested that member scores could be aggregated to the team level. As expected, ANOVA results indicated that perceptions of justice were lower in teams with a violated team member ($M = 3.62$, $SD = 0.33$) than in control teams ($M = 3.93$, $SD = 0.25$), $F(1, 55) = 5.68$, $p < .05$, $\eta^2 = .09$.

Individual-level negative mood. We coded for individual-level negative mood ranging from neutral to very unpleasant using a 3-point scale (1 = *low*; 3 = *high*). Interrater reliability was .97. As expected, evidence supported convergence, ICC(1) = .34, ICC(2) = .67, $p < .01$.

Team-level negative mood. We coded team-level negative mood as ranging from neutral to very unpleasant using a 3-point scale (1 = *low*; 3 = *high*). Interrater reliability was .89. As expected, violated teams had greater negative mood ($M = 1.32$, $SD = 0.47$) than nonviolated teams ($M = 1.07$, $SD = 0.27$, $p = .08$).

Recovery manipulation. We checked the recovery manipulation by coding team emotions. We expected the manipulation to result in positive mood convergence (see Barsade, 2002) and increased positive team mood (Fehr & Gelfand, 2010; Fukuno & Ohbuchi, 1998).

Individual-level positive mood. We coded for individual-level positive mood as ranging from neutral to very pleasant using a 3-point scale (1 = *low*; 3 = *high*). Interrater reliability was .96. As expected, evidence supported convergence, ICC(1) = .35, ICC(2) = .69, $p < .01$.

Team-level positive mood. We coded team-level positive mood as ranging from neutral to very pleasant using a 3-point scale (1 = *low*; 3 = *high*). Interrater reliability was .87. As expected, recovered teams had greater positive mood ($M = 1.62$, $SD = 0.36$) than nonrecovered teams ($M = 1.30$, $SD = .63$, $p < .05$).

Coreness manipulation. We checked the manipulation of coreness by using a survey and coding team emotions. We expected DM1 to be identified as the most critical and that teams would display more emotional intensity after a core manipulation than a non-core manipulation.

Coreness. After performance task 2, participants were asked to respond to a multiple choice item identifying which one of their team members was most critical to the task. Seventy-four percent of the participants identified DM1 as the most critical team member. There was no difference in error rate between conditions, $F(4, 246) = 1.22$, $p = .30$.

Team-level emotional intensity. We compared the emotional intensity of team reactions to core violations and recoveries versus non-core violations and recoveries. We coded based on Roberson (2006) using a 3-point scale, with 1 indicating *low intensity* (quiet speech, slow tempo, narrow pitch range) and 3 indicating *high intensity* (loud speech, rapid tempo, high pitch, and wide pitch range). Interrater reliability was .96. Following the violation, the differences for core team member violations ($M = 2.00$, $SD = 0.61$) versus non-core team member violations ($M = 1.95$, $SD = 0.76$) were in the expected direction but were not significantly different. As expected, teams displayed greater emotional intensity following core team member recovery ($M = 1.71$, $SD = 0.71$) compared to non-core team member recovery ($M = 1.30$, $SD = 0.47$, $p < .05$).

Tests of Hypotheses

All hypotheses were tested with ANOVA. Hypothesis 1 predicted that a violated team member will individually (a) engage in fewer supervisor-directed OCBs and (b) give a lower supervisor performance evaluation than a nonviolated team member in the same role position. There was a significant effect of the violation on supervisor-directed OCBs, such that a violated team member engaged in fewer supervisor-directed OCBs ($M = 0.59$, $SD = 0.50$) than a nonviolated team member in the same role position ($M = 0.85$, $SD = 0.37$), $F(1, 66) = 7.35$, $p < .01$, $\eta^2 = .10$. There

[3] The relatively low values of ICC(1) and ICC(2) are likely a function of restriction of variance in our measure of performance evaluations (Lebreton, Burgess, Kaiser, Atchley, & James, 2003).

Table 1
Intercorrelations Between Variables and Descriptive Statistics

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Experimenter 1			—							
2. Experimenter 2			−.70**	—						
3. Coreness			−.04	.16	—					
4. Recovery			.31*	−.25	−.02	—				
5. Supervisor-directed OCBs (violated team member)	0.60	0.49	.11	−.33*	−.33*	.33*	—			
6. Supervisor-directed OCBs (third-party teammates)	0.70	0.36	−.05	−.21	−.36*	.32*	.36*	—		
7. Performance evaluation (violated team member)	4.82	0.29	.26	−.37*	−.06	.29†	.23	−.01	—	
8. Performance evaluations (third-party teammates)	4.88	0.12	.16	−.17	.03	.36*	.23	.04	.29†	—

Note. Experimenter 1 and Experimenter 2 are dummy codes representing the three experimenters. Coreness is coded as 1 = Core member violation, 0 = Non-core member violation. Recovery is coded as 1 = Yes, 0 = No. For organizational citizenship behaviors (OCBs), higher numbers indicate greater OCBs on a scale from 0 to 1. For performance evaluation, higher numbers indicate lower retaliation.
† $p < .08$. * $p \leq .05$. ** $p < .01$.

was a significant effect of the violation on performance evaluations, such that a violated team member gave the supervisor a lower performance evaluation ($M = 4.81$, $SD = 0.30$) than a nonviolated team member in the same role position ($M = 4.91$, $SD = 0.19$), $F(1, 65) = 5.30$, $p < .05$, $\eta^2 = .08$. Therefore, Hypothesis 1 was supported.[4]

Hypothesis 2 predicted that third-party teammates of a violated team member will collectively (a) engage in fewer supervisor-directed OCBs and (b) give lower a supervisor performance evaluation than third-party teammates of a nonviolated team member. There was a significant effect of the violation on supervisor-directed OCBs, such that the third-party teammates of a team experiencing the violation of a member engaged in fewer supervisor-directed OCBs ($M = 0.66$, $SD = 0.38$) than third-party teammates who did not experience the violation of a member ($M = 0.83$, $SD = 0.24$), $F(1, 63) = 3.73$, $p = .05$, $\eta^2 = .07$. However, the effect of the violation on third-party teammates' performance evaluations was not significant; only Hypothesis 2a received support.

Hypothesis 3 predicted that a violated core team member will individually (a) engage in fewer supervisor-directed OCBs and (b) give a lower supervisor performance evaluation than a violated non-core team member. These analyses were conducted using only teams that had experienced a justice violation; control teams were removed for the remainder of the hypotheses tests. There was a significant effect of violated member coreness on supervisor-directed OCBs, such that a violated core team member engaged in fewer supervisor-directed OCBs ($M = 0.43$, $SD = 0.50$) than a violated non-core team member ($M = 0.77$, $SD = 0.42$), $F(1, 45) = 3.86$, $p = .05$, $\eta^2 = .08$. However, the effect of violated member coreness on performance evaluations was not significant. Therefore, only Hypothesis 3a received support.

Hypothesis 4 predicted that third-party teammates of a violated core team member will collectively (a) engage in fewer supervisor-directed OCBs and (b) give lower supervisor performance evaluations than third-party teammates of a violated non-core team member. There was a significant effect of violated member coreness on supervisor-directed OCBs for third-party teammates. In particular, third-party teammates of a violated core team member engaged in fewer supervisor-directed OCBs ($M = 0.54$, $SD = 0.44$) than third-party teammates of a violated non-core team member ($M = 0.81$, $SD = 0.25$), $F(1, 45) = 4.39$, $p < .05$, $\eta^2 = .10$. However, the effect of violated member coreness on performance evaluations for third-party teammates was not significant; only Hypothesis 4a received support.

Hypothesis 5 predicted that a violated team member that receives a recovery will individually (a) engage in greater supervisor-directed OCBs and (b) give a higher performance evaluation than a violated team member who does not receive a recovery. There was a significant effect of recovery on supervisor-directed OCBs, such that a violated team member who received a recovery engaged in greater supervisor-directed OCBs ($M = 0.76$, $SD = 0.43$) than a violated team member who did not receive a recovery ($M = 0.43$, $SD = 0.50$), $F(1, 45) = 4.58$, $p < .05$, $\eta^2 = .10$. There was a significant effect of recovery on performance evaluations, such that a violated team member that received a recovery give higher performance evaluations ($M = 4.95$, $SD = 0.12$) than a violated team member who did not receive a recovery ($M = 4.73$, $SD = 0.32$), $F(1, 45) = 5.69$, $p < .05$, $\eta^2 = .13$. Therefore, Hypotheses 5a and 5b were supported.

Hypothesis 6 predicted that when a violated team member receives a recovery, third-party teammates will collectively (a) engage in greater supervisor-directed OCBs and (b) give higher supervisor performance evaluations than when a violated team member does not receive a recovery. There was a significant effect of recovery on supervisor-directed OCBs, such that when a violated team member received a recovery, third-party teammates engaged in greater supervisor-directed OCBs ($M = 0.79$, $SD = 0.31$) than when a violated team member did not receive a recovery ($M = 0.55$, $SD = 0.42$), $F(1, 45) = 4.60$, $p < .05$, $\eta^2 = .10$. There was a marginally significant effect of recovery on performance evaluations for third-party teammates, such that when a violated team member received a recovery, third-party teammates gave higher performance evaluations ($M = 4.93$, $SD = 0.09$) than when a violated team member did not receive a recovery ($M = 4.83$, $SD = 0.14$), $F(1, 45) = 3.44$, $p = .07$,

[4] Because ANOVA is not robust to variance heterogeneity when sample sizes are unequal (Glass, Peckham, & Sanders, 1972; Tomarken & Serlin, 1986), we also ran a regression analysis in testing Hypothesis 1 and found the same results. Because the dependent variable of violated member supervisor-directed OCBs was dichotomous, we also ran logistic regression tests for all hypotheses involving this dependent variable, and the results did not differ.

Table 2
Means by Condition for Supervisor-Directed OCBs and Performance Evaluations

Variable	Control (no violation)		Core violation, no recovery		Core violation, recovery		Non-core violation, no recovery		Non-core violation, recovery	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Supervisor-directed OCBs (violated team member)			0.16	0.38	0.73	0.46	0.73	0.46	0.82	0.40
Supervisor-directed OCBs (third-party teammates)	0.83	0.23	0.25	0.35	0.85	0.31	0.88	0.16	0.73	0.30
Performance evaluation (violated team member)			4.78	0.32	4.82	0.31	4.68	0.32	5.00	0.00
Performance evaluations (third-party teammates)	4.90	0.12	4.82	0.15	4.95	0.07	4.85	0.13	4.89	0.11

Note. For organizational citizenship behaviors (OCBs), higher numbers indicate greater OCBs on a scale from 0 to 1. For performance evaluation, higher numbers indicate lower retaliation.

$\eta^2 = .07$. Therefore, Hypothesis 6a was supported and Hypothesis 6b was marginally supported.

Hypothesis 7 predicted an interaction between the coreness of the violated team member and recovery. We hypothesized that following a recovery of the violated team member, a violated core team member will individually (a) engage in greater supervisor-directed OCBs and (b) give a higher supervisor performance evaluation than a violated non-core team member. There was a marginally significant interaction between the violation manipulation and the recovery manipulation on the violated team member's supervisor-directed OCBs, $F(1, 45) = 3.62$, $p = .06$, $\eta^2 = .09$. A graph of this interaction shows that the violation of a non-core team member had little effect on his or her supervisor-directed OCBs. In addition, when a non-core team member was violated and not recovered, the violated team member's OCBs were not affected. In contrast, when the core team member was violated and was not recovered, his or her supervisor-directed OCBs dropped (see Figure 1). However, there was no interaction between the manipulations on the violated team member's supervisor performance evaluations. Therefore, only Hypothesis 7a received support.

Hypothesis 8 predicted an interaction between the coreness of the violated team member and recovery, such that following a recovery of the violated team member, third-party teammates will collectively (a) engage in greater supervisor-directed OCBs and (b) give higher supervisor performance evaluations when a core team member was violated and recovered than when a non-core team member was violated and recovered. There was an interaction between the violation manipulation and the recovery manipulation on third-party members' supervisor-directed OCBs, $F(1, 45) = 21.05$, $p < .001$, $\eta^2 = .36$. A graph of this interaction shows the same pattern as the violated team member's reactions (see Figure 2). Third-party teammates' supervisor-directed OCBs were

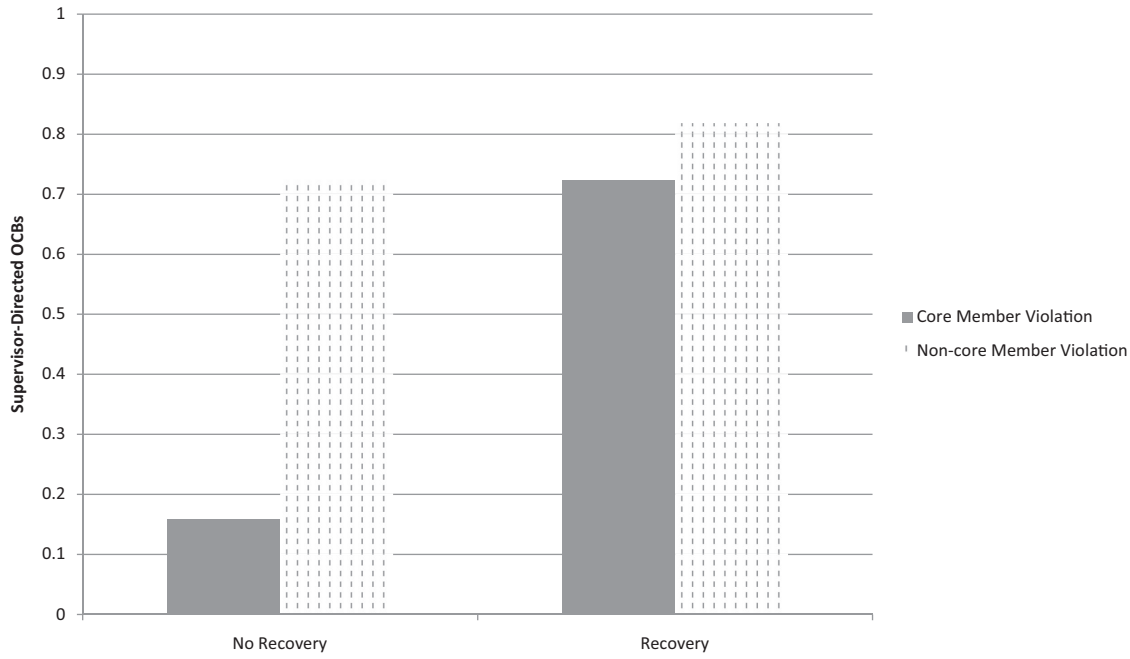

Figure 1. Effect of violated team member coreness and recovery on the violated team member's supervisor-directed organizational citizenship behaviors (OCBs). OCBs for the violated team member are scored from 0 to 1; higher levels indicate greater OCBs.

affected only when a core team member was violated and was not recovered. However, there was no interaction between the manipulations on third-party teammates' supervisor performance evaluations. Therefore, only Hypothesis 8a received support.

Discussion

Our purpose of this study was to extend the literature on justice in teams by focusing on outcomes associated with injustice directed at one team member. We found evidence that violations lead both the violated team member and his or her third-party teammates to retaliate against the wrongdoer but that those reactions depend on which team member is violated. We also found that supervisors can remedy the situation by recovering a violated team member. Our results were more supportive for supervisor-directed OCBs than for performance evaluations.

Theoretical Implications

First, our research contributes to the literature on justice in groups and teams. Although we know a great deal about injustice and individual retaliation (e.g., Daileyl & Kirk, 1992; Folger & Konovsky, 1989; Masterson et al., 2000; Skarlicki & Folger, 1997), it was unclear whether the same effects would emerge in teams. A key contribution of our work is the combination of well-established individual-level theories of justice with a relatively new role-based approach to the emergence of phenomena at the team level (i.e., strategic core theory) that helps to explain how collective action occurs following an injustice directed toward one individual. Rather than focus on composition models that are based on consensus, such as the referent shift model (see Chan, 1998) or configural models using the minimum or maximum value (see Kozlowski & Klein, 2000), strategic core theory focuses on specific roles within the team and suggests that those roles can differentially impact team-level outcomes. Humphrey et al. (2009) noted that the characteristics of core members (i.e., handling crucial problems) require that more resources should be flowing through these types of pivotal roles. Our data support their rationale by showing that it is just as important not to take resources away from core team members.

Second, our findings add to the emerging literature on justice recovery. We find that, as with justice violations, the effects of recovering team members following an injustice exhibit isomorphic properties at the team level. However, there are specific team-level issues that play a role in the effectiveness of recovery attempts. Although recovery is important, it is most important when the violated team member occupies a core role within the team and can move the team in a positive direction.

Third, our findings contribute to the literature examining indirect forms of retaliation in response to injustice. Aside from the distinction made between direct and indirect retaliation (e.g., Homans, 1961; Jermier, Knights, & Nord, 1994; Skarlicki & Folger, 1997), little work differentiates between retaliation in terms of severity. Previous work has examined transgression severity, arguing that more severe offenses increase retaliation (e.g., Folger, 2001; Tripp et al., 2007), but we know less about retaliation severity. We find that any direct violation increases mild

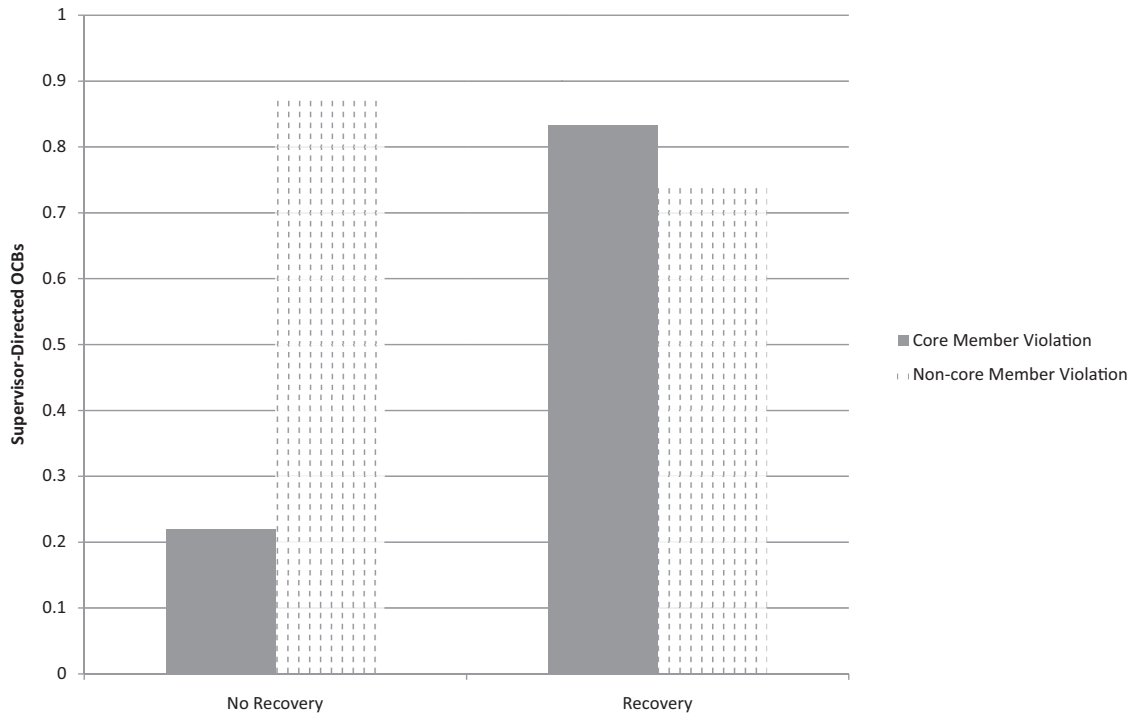

Figure 2. Effect of violated team member coreness and recovery on third-party teammates' supervisor-directed organizational citizenship behaviors (OCBs). Third-party teammates' OCBs are scored from 0 to 1; higher levels indicate greater OCBs.

(withholding OCBs) and moderately severe (lowered performance evaluations) retaliation behavior. At the team level, third-party teammates may engage in mild forms of retaliation on behalf of a violated teammate but are less likely to engage in more severe retaliation, suggesting a limit to collective action that might be considered in further theory building.

Practical Implications

Our findings are significant in that we show that managers should approach fairness issues in teams with care. A supervisor who has a bad day and takes it out on one team member or who makes allocation decisions to distribute rewards or resources differently among members of a team may unwittingly receive retaliatory responses from multiple parties.

If faced with a decision with justice ramifications, supervisors might first ask themselves (a) is this decision necessary? Given the consequences of justice violations in teams, supervisors may want to think creatively about alternatives to a justice violation, such as rotating shifts or altering a team's reward structure. If the injustice is determined to be necessary, supervisors should then ask themselves (b) is this decision likely to be perceived as unfairly "singling out" an important member of the team? It is possible that teams may not perceive as great an injustice if it is targeted toward a member who, as defined by role position, contributes less to the team. If the individual is a core member, supervisors should then ask themselves (c) will I have an opportunity to recover the individual from the injustice and through what means? Perhaps monetary compensation is not an option, but supervisors can recover an individual through interactional and procedural means. For example, following a violation, a courteous and genuine explanation and apology may serve as an effective recovery.

We would also like to note the practical significance of the effects on supervisor performance evaluations, despite the small differences across conditions. In actual performance appraisal situations, where raters are susceptible to leniency and halo biases, performance evaluations tend to be negatively skewed and are often inflated (e.g., Balzer & Sulsky, 1992; James, Demaree, & Wolf, 1984; Landy & Farr, 1980; Schriesheim, 1981). Research also indicates that any negative information (even slightly negative) is weighted more heavily than positive information (e.g., Brannick & Brannick, 1989; Ito, Larsen, Smith, & Cacioppo, 1998). Thus, an individual who is rated even slightly lower than others may see significant effects in terms of job assignments and promotion decisions.

Limitations and Future Directions

We recognize that this study had several limitations. First, we focused on action teams, which have moderate authority differentiation (i.e., formal leadership) and skill differentiation (i.e., distributed expertise) and relatively short temporal stability (Hollenbeck et al., 2012). Hollenbeck et al. (2012) argued that team researchers should focus on underlying dimensions rather than team categories. Thus, we believe that our results are likely to apply to other team contexts with high levels of interdependence and external leadership. Even short-term groups experience third-party justice effects (Turillo et al., 2002) and emotional contagion (Barsade, 2002); however, our teams may not be optimal for contagion to occur because of their low temporal stability. It is likely that our results would be stronger in more stable interdependent teams. Nevertheless, generalizability is an issue.

Second, more stable teams would likely have greater team identification, which would strengthen the effects found in this study. We kept identification constant by selecting participants with the same university major, by training the teams together and allowing them to experience a preliminary performance episode, and by using team-level rewards. Future research may find that team identification represents an important boundary condition. Brockner and Greenberg (1990), for example, found that layoff survivors who identified with the layoff victims tended to view the layoff as highly unfair. It is likely that the more a third party identifies with the victim, the stronger the third party's moral outrage.

Third, our justice and recovery manipulations contained elements of distributive, procedural, and interactional justice. It is possible that a violation containing only one element (e.g., poor interpersonal treatment) may be less influential on team behaviors, and we cannot make direct inferences to such situations. However, researchers have argued that individuals have difficulty disentangling the types of justice and that general fairness perceptions are used as a heuristic from which more specific forms of justice are generated (e.g., Ambrose & Schminke, 2009; Cropanzano & Ambrose, 2001; Hauenstein, McGonigle, & Flinder, 2001; Lind, 2001).

Fourth, we recognize that, in the field, supervisors may engage in multiple recovery behaviors, such as providing performance feedback or engaging in longer term relationship building tactics, which may mitigate the effects of a single violation. On the other hand, a justice violation from an experimenter is likely perceived as less damaging than a justice violation from an actual supervisor. Despite potential differences, the formal authority possessed by the experimenter in our study mirrors the formal authority possessed by supervisors in organizations. In terms of justice, individuals care about fairness because it provides a signal of the extent to which they are respected by authorities and the degree to which an authority figure cares about their interests, feelings, and standing (Jones, 2009; Tyler & Lind, 1992), principles that, when violated, have similar psychological effects across the field and laboratory context. Additionally, the laboratory context created a situation where team members could more easily track inputs and outcomes. In organizations, members may not be aware of input–outcome ratios and justice violations may be more ambiguous, which limits the generalizability of our findings.

Finally, although our data suggest that teams experienced shared emotions following a violation, we were limited by our sample size (see Muller, Judd, & Yzerbyt, 2005; Preacher, Rucker, & Hayes, 2007) and did not find support for the role of emotional contagion as a mediator in our model. This question bears investigation in future research.

A question for future research involves firsthand versus secondhand witnessing of a justice violation. In our study, teammates publically witnessed the violation, which likely impacted shared justice perceptions and behaviors. Would the same effects be observed if teammates were later told about the violation as opposed to actually witnessing it? Previous research suggests that the effect may disappear. For example, Kray and Lind (2002) found that individuals who were told that another coworker had

experienced injustice but had not witnessed the event themselves were relatively insensitive to their coworker's plight. It would also be interesting to examine how teams as third parties to injustice react to abusive supervision, "engage [ing] in the sustained display of hostile verbal and non-verbal behaviors, excluding physical contact" (Tepper, 2000, p. 178). Abusive supervision impacts fairness perceptions (Aryee, Chen, Sun, & Debrah, 2007; Tepper, 2000; Zellars, Tepper, & Duffy, 2002); however, it may affect entire teams or units, not just the individuals directly experiencing abuse.

Conclusion

Our results extend the literature on justice in teams by bringing together theories from the individual and team levels to examine how team members respond to justice violations by authority figures. Overall, we find that justice violations and whether or not recovery attempts are made translate directly into retaliatory behavior from the entire team, particularly if the violated member occupies a core position. This finding provides managers with evidence that treating team members differently can have significant consequences.

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