Adding the "In" to Justice: A Qualitative and Quantitative Investigation of the Differential Effects of Justice Rule Adherence and Violation

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Although justice scholars often assume that individuals react to injustice in a manner that is distinct from their reactions to justice, few studies have examined this assumption. Indeed, the most widely utilized measures in the literature assess only the adherence to rules of justice—not their violation. We conducted 2 studies to build and test theory about differential reactions to justice and injustice. An inductive study revealed that reactions to the adherence to justice rules reflected different constructs than reactions to the violations of justice rules. In a follow-up field study, we derived hypotheses for those patterns by drawing on the negativity bias and regulatory focus literatures. Specifically, justice rule violation was predicted to be more relevant to prevention-laden outcomes that represent a high level of vigilance and concerns about safety. Justice rule adherence was predicted to be more relevant to promotion-laden outcomes that represent concerns about becoming the ideal self. The field study supported many of those predictions while showing that a full-range justice measure (i.e., one that sampled both justice rule adherence and justice rule violation) explained more variance in outcomes than existing "truncated" justice measures.

Keywords: justice, negativity bias, regulatory focus

In many respects, the organizational justice literature is a mature content area devoid of major controversies. Scholars agree that justice is a multidimensional phenomenon, with those dimensions reflecting various rules identified in seminal theorizing. Distributive justice represents the degree to which decision outcomes follow the equity rule (Adams, 1965; Leventhal, 1976), whereas procedural justice reflects the degree to which decision-making processes follow rules such as consistency, accuracy, bias suppression, and voice (Leventhal, 1980; Thibaut & Walker, 1975). Interpersonal justice reflects the degree to which the enactment of procedures follows rules like respect and propriety, whereas infor-

mational justice focuses on the justification and truthfulness rules (Bies & Moag, 1986; Greenberg, 1993). Empirical research has shown that these justice dimensions are highly correlated and predict overall fairness evaluations (Ambrose & Schminke, 2009; Kim & Leung, 2007), as well as a number of work-related attitudes and behaviors (e.g., Colquitt et al., 2013). Moreover, interventions have been designed to train supervisors on these justice rules, in an effort to benefit their work units (Skarlicki & Latham, 2005).

Although the paradigmatic consensus in the justice domain serves as a testament to the work that has occurred over the past three decades, it may be masking an important issue. That issue concerns the manner in which individuals react to "justice" (i.e., the degree to which the rules identified in the literature are adhered to) and "injustice" (i.e., the degree to which the rules identified in the literature are violated). Some scholars suggest that injustice—as opposed to justice—is the key driver of attitudes and behavior. For example, Organ (1990), in his seminal articulation of the relationship between justice and citizenship behavior, speculated that injustice would restrict naturally occurring citizenship on the part of employees, noting that "just as we have little reason to recognize comfort except when struck with the reality of discomfort, we have little reason to think much about fairness until demonstrable unfairness obtains" (pp. 67–68). Similarly, Cropanzano, Stein, and Nadisic (2011) suggested, "Justice may be seen as the normal state that people do not notice until something goes wrong, just as a fish notices that it needs water only when it is taken out of the sea" (p. 220; see also Folger & Cropanzano, 1998). Similar assertions have been made by other justice scholars (Bies, 2001; Gilliland, 2008; Harlos & Pinder, 1999) but have rarely been
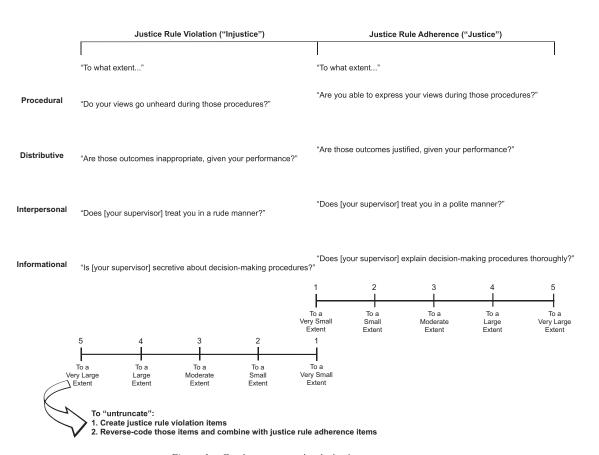
the subject of empirical testing. One exception was work by Gilliland, Benson, and Schepers (1998), who showed that undergraduates reacting to a layoff scenario in an experiment were more strongly influenced by injustice (i.e., the absence of advance notice) than by justice (i.e., the provision of a severance package). Another exception was a functional magnetic resonance imaging (fMRI) study by Dulebohn, Conlon, Sarinopoulos, Davison, and McNamara (2009) that showed that the violation of justice rules activates different regions of the brain than adherence to justice rules.

The notion that justice rule violation is more predictive of reactions than justice rule adherence represents an interesting paradox for the literature. On the one hand, many justice scholars would agree with the notion and find it both reasonable and intuitive. On the other hand, if true, the notion creates an important disconnect with the theoretical and empirical foundations of the justice literature. Theoretically, the major conceptual lenses in the justice literature, including fairness theory, fairness heuristic theory, uncertainty management theory, and the relational model (Folger & Cropanzano, 2001; Lind, 2001; Tyler & Lind, 1992; van den Bos & Lind, 2002), do not draw distinctions between reactions to justice and injustice. Empirically, it must be noted that self-report scales tend to only ask about the degree of justice rule adherence (Colquitt, 2001; Moorman, 1991). For example, Colquitt's (2001) scale asks respondents the extent to which justice rules are adhered to—not the extent to which they are violated.

That empirical disconnect is expressed graphically in Figure 1. The right half of the figure illustrates the format of Colquitt's

(2001) scale using sample items for the procedural, distributive, interpersonal, and informational dimensions, along with the accompanying anchors (from 1 = *to a very small extent* to 5 = *to a very large extent*). Because the items ask solely about rule adherence, the right half can be summarized as the "justice" end of the injustice–justice continuum. What is absent from Colquitt's (2001) scale are items that ask about justice rule violation—about the refusal of voice, the inequitable allocation of outcomes, or the use of rude or secretive communications. Such items are shown in the left half of Figure 1. Because they ask about rule violation, such items can be summarized as the "injustice" end of the injustice–justice continuum. We define *continuum truncation* as a condition where the measures in a literature sample only a subset of the full range of experiences associated with a construct. This condition currently marks the justice literature because relevant experiences—rule violation experiences—are not measured by existing scales.

We should note that the conceptualization in Figure 1 does not suggest that justice and injustice are independent constructs. More technically, Figure 1 illustrates a "bipolar" structure for justice and injustice—where the two are opposite ends of one continuum—not a "bivariate" structure—where the two are independent concepts. Bivariate structures have been utilized in the literatures on evaluations and affect and allow for the possibility that individuals can have positive and negative feelings toward a stimulus simultaneously (Cacioppo & Berntson, 1994; Cacioppo, Gardner, & Berntson, 1997; Larsen & Diener, 1992; Russell, 1980; Watson &

Figure 1. Continuum truncation in justice measurement.

Tellegen, 1985; Yik, Russell, & Steiger, 2011). Although we will return to this issue later, it seems difficult to simultaneously view a given justice rule as both adhered to and violated. For the most part, decision events cannot be both consistent and inconsistent, neutral and biased, accurate and inaccurate, equitable and inequitable, truthful and dishonest, or polite and rude.

The purpose of our investigation was to examine the implications of continuum truncation in the justice literature. We began by conducting an inductive study using qualitative methods to explore whether reactions to justice rule violation were somehow distinct from reactions to justice rule adherence. If they are not, then the continuum truncation shown in Figure 1 would not hinder the ability of justice scholars to explain variance in outcomes of interest (because what is uncovered by the left half of Figure 1 would merely be reproducing what is uncovered by the right half of Figure 1). We felt that an inductive study would be a worthwhile starting point because existing justice theories are silent on the distinction between justice and injustice. Qualitative methods are appropriate when no explicit hypotheses exist to be tested or when any existing predictions are so abstract that formal tests are not appropriate (Suddaby, 2006). The latter was the relevant circumstance when planning our investigation, as existing conceptual arguments (Bies, 2001; Cropanzano et al., 2011; Gilliland, 2008; Organ, 1990; Rupp & Spencer, 2006) and empirical tests (Gilliland et al., 1998) pointed to a general expectation that injustice would be more predictive of reactions than justice. It remained unclear, however, what outcomes would be most appropriate for unpacking that general expectation.

Although the inductive nature of Study 1 precluded us from having a priori hypotheses, scholars can conduct qualitative work with a "head full of theories" that inform their reactions to empirical data (Weick, 2007, p. 16). In our case, we were mindful of the literature on negativity bias, given that it encapsulated the "injustice is more predictive" expectation in the literature (Bies, 2001; Cropanzano et al., 2011; Gilliland, 2008; Gilliland et al., 1998; Organ, 1990; Rupp & Spencer, 2006). The principle of negativity bias holds that negative stimuli are more salient, potent, and predictive than positive stimuli (Rozin & Royzman, 2001). Baumeister, Bratslavsky, Finkenauer, and Vohs (2001) reviewed a number of literatures that reveal this "bad is stronger than good" pattern, which is generated by three specific mechanisms (Rozin & Royzman, 2001). Those include negative potency (when positive and negative stimuli have the same magnitude, the latter are deemed more salient), negative dominance (holistic assessments of an object are more influenced by negative traits than positive traits), and greater negative differentiation (negative stimuli are described in more elaborate, differentiated, and rich terms than positive stimuli). Although our inductive study uncovered several examples of negativity bias, it also revealed cases where injustice was *not* "stronger than" justice.

Study 1

Method

Our inductive study was based on 100 structured interviews with 50 executive students pursuing a master's degree in business administration (MBA). The sample included 38 men and 12 women, with an average age of 34 years and an average tenure in their organization of 6.48 years. Structured interviews are a common input into qualitative investigations, given that participants' own words are needed for the "meaning making" that occurs as conceptual categories are constructed (Glaser & Strauss, 1967; Locke & Golden-Biddle, 2002; Suddaby, 2006). Our interviews focused on the kinds of reactions that participants recounted when exposed to just and unjust treatment by supervisors. We included questions on the procedural, interpersonal, informational, and distributive justice rules that have come to define the justice landscape.

We created justice versions of our questions by focusing on justice rule adherence and injustice versions of our questions by focusing on justice rule violations. We constructed our injustice questions using "polar-opposite" versions of our justice questions, as opposed to "negated-regular" versions that would merely insert the word "not" (Schriesheim & Eisenbach, 1995). We felt this wording approach would more accurately characterize the presence of injustice, rather than merely the absence of justice. Participants experienced one version of the interview at Time 1, with the second version of the interview given at Time 2, conducted 1 month later. The order of the interviews was counterbalanced.

We also constructed our questions to vary in the "extent" of justice or injustice. Scholars have speculated that reactions to justice or injustice may be more intense when treatment lays at the tails of the distribution or when norms and expectations are more clearly violated (Beugré, 2005; Gilliland, 2008; Jones & Skarlicki, 2005). In other words, it may be that reactions to justice and injustice depend on whether treatment is "especially just" or "particularly unjust." To explore such issues, we varied the extremity of the rule adherences and violations in the questions. Specifically, half of the participants received an extreme version of the questions at both time periods in which adverbs like *especially* and *particularly* had been inserted, with the other half receiving a regular version without those adverbs.

Appendix A includes our interview questions. The justice version of each question is listed first, and the injustice version is listed second, with extremity adverbs shown in brackets. The procedural–interpersonal-informational–distributive order was also counterbalanced across participants, though individual participants experienced the same order at both Time 1 and Time 2. We introduced the interviews by explaining that we were conducting research on leadership. All participants were interviewed individually and in person by one of the authors, and the audio of each interview was digitally recorded and subsequently transcribed verbatim. We conducted the interview sessions on campus in departmental offices. Each interview session lasted approximately 15 min, including the introductions and a very brief overview.

The four authors coded and analyzed the interview transcriptions, looking for conceptual categories— or themes—that could summarize the reactions (Glaser & Strauss, 1967). We read the interview transcripts as a group, constructing reaction themes using the NVivo Version 8 software system. NVivo is a qualitative data analysis application produced by QSR International that helps scholars organize and classify nonnumerical data (NVivo, Version 8). We identified new themes until theoretical saturation was reached, which Glaser and Strauss (1967) defined as the state at which no new or incremental themes are being identified. For our study, we used the reading of 10 consecutive transcripts with no new themes being added as an appropriate demarcation for reach-

ing theoretical saturation. We retained themes for subsequent analysis if they met a minimum threshold of three occurrences (e.g., Hollensbe, Khazanchi, & Masterson, 2008). This process resulted in 12 themes that were then used to construct a coding scheme. In cases where a theme clearly reflected an existing construct, we used the definition from that literature to summarize it. In cases where a theme did not seem to represent an existing construct, we used the *New Oxford American Dictionary* (Stevenson & Lindberg, 2010) to define it.

Prior to coding the full set of transcripts, we independently coded a random sample of 12 transcripts from six participants to test interrater reliability. Intraclass correlation (ICC) results were above conventional hurdles (ICC1 = .75, ICC2 = .87; Bliese, 2000). We then met as a group to discuss any discrepancies and identify remedies, which resulted in some very minor adjustments to our coding scheme. After randomly distributing all 100 transcripts among the four authors, each author utilized the final coding scheme to independently code in NVivo. Once we completed independent coding, we merged the NVivo files to create a complete data file.

Results and Discussion

In reviewing the results for our 12 themes, we found six that seemed to fit the pattern that would be expected from the negativity bias literature. The results for those six themes are shown in Table 1. The left-most column provides the labels we provided for our themes, which are fleshed out in more detail in the passages that follow. The next column provides a verbatim passage from the justice interview condition that provides an example of the theme. What follows is the number of times that theme surfaced in the justice interview condition across the 50 participants and the nine interview questions. The bracketed numbers then break that overall total down by regular interview questions and extreme interview questions. The last two columns then repeat that information for the injustice interview condition. A verbatim passage is provided to exemplify the theme, along with the number of times the theme surfaced in the injustice interview condition, broken down by regular versus extreme questions. For example, row 1 reveals that responses indicative of our first theme surfaced 13 times in the justice interview condition, with six of those occurring with the regular questions and seven occurring with the extreme questions. The theme surfaced 65 times in the injustice interview condition, with 32 of those occurring with the regular questions and 33 occurring with the extreme questions. To put those totals in perspective, if a given theme was evoked for all 50 participants and with all nine of the interview questions, the total in the table would be 450. We should make two additional points about the summary in Table 1 before discussing our results in more detail. First, participant responses did not seem to differ between the regular and extreme versions. It therefore did not seem to be the case that reactions to justice or injustice were a matter of extent or degree. Second, the results for justice and injustice tended to be similar across the procedural, interpersonal, informational, and distributive questions. Our discussion therefore focuses on an overall justice and injustice level of abstraction.

Table 1 reveals that the injustice interview questions triggered more *contingent reactions* than the justice interview questions. Contingent reactions reflect responses whose content depends on the employee's characterization of the situation, the intent, or the context, often structured around an "it depends," "either–or," "if–then," "sometimes this–sometimes that," or "case by case" sort of phrasing. Such reactions represent greater negative differentiation because they are rich, detailed, and elaborated. Along the same lines, the injustice interview questions triggered fewer *superficial reactions* than the justice interview questions. Superficial reactions are cursory and insubstantial, not thorough or detailed. Such reactions represent what might be termed *less positive differentiation* because of their vagueness. The same could be said for *expectation reactions*, which occurred less often with the injustice interview questions. Expectation reactions represent the sense that some action either fulfilled or violated some baseline standard of conduct. Merely comparing an action to some expectation, without any sort of deeper follow-up analysis, represents another example of an undifferentiated response.

Additional themes represented affect, with one providing another example of greater negative differentiation. Models of affect tend to distinguish two kinds of appraisals (Larsen & Diener, 1992; Lazarus, 1991; Russell, 1980; Watson & Tellegen, 1985). Primary appraisal involves an initial reaction to a stimulus, resulting in a coarse happy-versus-sad valence. Secondary appraisal involves an in-depth examination of the stimulus, along with contextual attributions and coping resources, that gives rise to specific emotions. *Hostility* is an example of a specific emotion triggered by secondary appraisal (Lazarus, 1991). Hostility surfaced more often with the injustice interview questions than the justice interview questions. Hostility was the only specific emotion that emerged from the interviews. Participants did not react to the interview questions with reports of positive emotions (e.g., enthusiasm, attentiveness, pride, or contentment) or negative emotions other than hostility (e.g., anxiety or guilt). The kind of coarse happy-versus-sad affect triggered by primary appraisal was reported in both interview conditions, however. That theme was labeled *pleasantness* and will be discussed later.

The results for the remaining two themes in Table 1 provide examples of negative potency, where negative stimuli are deemed more salient and important than positive stimuli (Rozin & Royzman, 2001). The injustice interview questions triggered more instances of *distraction* than did the justice interview questions. Distraction represents an inability to focus attention on core value-producing activities (Mayer & Gavin, 2005). Such results illustrate negative potency because the greater salience and importance of injustice triggered more intense focusing problems. Similarly, the injustice interview questions triggered more instances of *counterproductive behavior* than the justice interview questions. Counterproductive behavior is defined as intentional actions that hinder organizational goal accomplishment (Sackett & DeVore, 2001).

Our other six themes did not fit the pattern that would be expected from the negativity bias literature. The results for those six themes are also shown in Table 1. Sometimes a given theme surfaced with an approximately equal frequency with both the justice interview questions and the injustice interview questions. One example was the aforementioned pleasantness theme. Another example was *trust*, defined as the willingness to be vulnerable to another party based on the expectation that the party will perform a particular action (Mayer, Davis, & Schoorman, 1995). Our coding also captured what Mayer et al. (1995) termed *trustworthiness*—expectations

Table 1

Interview Patterns Consistent With Negativity Bias and Not Consistent With Negativity Bias

Resulting theme	Justice interview sample response	Count [regular/extreme]	Injustice interview sample response	Count [regular/extreme]
Consistent with negativity bias				
Contingent reactions	"It depends on the scenario. I guess it's a case by case situation."	13 [6/7]	"I think it depends on what the subject matter is. If it's something that I'm regarded as being somewhat knowledgeable on, then I would find that frustrating. In certain things, I know that's not my place to insert myself into decision-making, so I think it depends on what the subject matter would be."	65 [32/33]
Superficial reactions	"I think that is a good thing. So I would react positively."	156 [80/76]	"Adversely. Especially if I disagreed with the decision or procedures."	37 [16/21]
Expectation reactions	"I wouldn't expect anything else."	51 [22/29]	"I think when they use improper language, it comes across in my facial expression—surprise that they did that."	8 [2/6]
Hostility	—	0 [0/0]	"It's annoying and aggravating to see that."	62 [36/26]
Distraction	"It lets you concentrate on work, instead of the outside variables that are out of your control."	6 [5/1]	"I would spend time guessing, and I can't focus on my job."	155 [75/80]
Counterproductive behavior	"You are less likely to show conscious or subconscious actions of retaliation."	2 [0/2]	"I don't care what they say; they can ask me whatever needs to be done, and I would do the opposite."	46 [27/19]
Not consistent with negativity bias				
Pleasantness	"I would think that . . . I would just be happy that they are—that if a manager is gonna go into a process that they have the fair and useful information needed to determine outcomes. I would be happy."	19 [11/8]	"I think it makes it somewhat disheartening to move forward and to take the criticism and the comments seriously if you know it's being done in a nonuniform manner."	17 [7/10]
Trust	"You trust them and their decisions, and you hope that they will do the right thing. They have given you proof that they probably will."	40 [19/21]	"I guess you lose a little bit of trust in the individual. If they show inconsistency, then I think there is probably a loss of trust."	48 [29/19]
Self-esteem	"You know, I think it is flattering. You see that they have faith in your competence."	45 [18/27]	"You feel shortchanged, or undervalued in the organization."	14 [5/9]
Reciprocation	"I would probably mirror that, and–and, you know, return that reaction approach."	23 [12/11]	"I think it makes you kind of, a little rude back, or you're like a little more, you are not as expressive, I would think."	8 [6/2]
Task performance	"I want to do a good job, and accomplish what they have asked in a timely fashion and to the best of my ability."	16 [9/7]	"And I would prefer not to admit it, but it would undermine my performance as well."	11 [7/4]
Citizenship behavior	"You're willing to do what you can to help them."	4 [2/2]	"You usually won't really go out of your way for the manager. You have enough to do—to cover your job, and that's it."	1 [1/0]

Note. Regular versus extreme refers to the format of the interview questions, with extreme questions including adverbs like *especially* and *particularly*. Speech disfluencies (e.g., "um," "uh") have been removed from some quotes for clarity.

about ability, benevolence, and integrity that should inspire a willingness to be vulnerable. We combined trust and trustworthiness in our coding because it was often difficult to tease them apart within a given passage.

Other times, a given theme surfaced more often with the justice interview questions than with the injustice interview questions—

results that seemed to indicate cases where "justice is stronger than injustice." One of those themes was *self-esteem*, defined as an individual's overall self-evaluation of his or her competencies (Rosenberg, 1965), and the degree to which employees believe that they can satisfy their needs by participating in their organizational roles (Pierce, Gardner, Cummings, & Dunham, 1989). Self-esteem

was more likely to be evoked by the justice interview questions than the injustice interview questions.

The remaining themes in Table 1 reflect many of the core dependent variables in justice research. One such theme was *reciprocation*, which we defined in our coding as a repayment in kind (Gouldner, 1960)—a mirroring of whatever behaviors a supervisor engages in during decision events. Reciprocation reactions were more likely to occur with the justice interview questions than with the injustice interview questions. A similar trend emerged with *task performance*, defined as the degree to which employees adequately perform the behaviors contained within their organizational role (Williams & Anderson, 1991), with the justice condition yielding more examples of task performance reactions. That same condition was also associated with more *citizenship behavior* reactions, defined as employee actions that are discretionary and not formally rewarded but that facilitate achievement of the organization's goals (Organ, 1990).

Study 2

In some respects, the results of Study 1 run counter to two different conventional wisdoms in the justice literature. First, they cast doubt on the notion that reactions to justice and injustice are interchangeable—that theories need not draw a distinction between them (Folger & Cropanzano, 2001; Lind, 2001; Tyler & Lind, 1992; van den Bos & Lind, 2002). Second, they cast doubt on the notion that "injustice is always stronger than justice" (Cropanzano et al., 2011; Gilliland et al., 1998; Organ, 1990), as would be expected from the literature on negativity bias (Baumeister et al., 2001; Rozin & Royzman, 2001). Although our results did reveal a number of patterns consistent with negative potency, negative dominance, or greater negative differentiation, our results for pleasantness, trust, self-esteem, reciprocation, task performance, and citizenship behavior ran counter to those patterns.

Returning to our discussion of continuum truncation, our Study 1 results suggest that—for some outcomes—"the action" (in terms of variance explained) may lay in the left half of Figure 1. For example, hostility may be better predicted by assessment of the extent to which justice rules are violated, as opposed to the extent to which justice rules are adhered to. For other outcomes, the action may lay in the right half of Figure 1. For example, self-esteem may be better predicted by assessment of the extent to which justice rules are adhered to, as opposed to the extent to which justice rules are violated. If the "action end" of the injustice–justice continuum does vary from outcome to outcome, how should scholars measure procedural, distributive, interpersonal, and informational concepts in a way that maximizes variance explained for all the various dependent variables that might be included in a study?

One answer is to "untruncate" measures of procedural, distributive, interpersonal, and informational justice. Turning to the bolded portion of Figure 1 at the bottom, such "untruncating" would involve two specific steps. First, items that assess justice rule violation—like those shown in the left half of Figure 1—would need to be created to supplement the rule adherence items shown in scales like Colquitt (2001) or Moorman (1991). Such items would arm scholars with content that captures the action in whatever outcome they would want to predict, including the full spectrum of outcomes in Table 1. Second, the rule viola-

tion items would need to be reverse coded so that they could be combined with the rule adherence items to form procedural, distributive, interpersonal, and informational scales. In the case of Colquitt's (2001) measure, that would result in a 14-item procedural scale (with seven adherence items and seven violation items), an eight-item distributive scale (with four adherence items and four violation items), an eight-item interpersonal scale (with four adherence items and four violation items), and a 10-item informational scale (with five adherence items and five violation items). The curved arrow in Figure 1 graphically depicts that reverse coding, which would result in the measure shown in Figure 2. We refer to that measure as a *full-range measure* because it assesses the extent of both justice rule adherence and justice violation. It is no longer truncated because it assesses the full range of experiences associated with its constructs—not a subset of those experiences. We propose that *more variance can be explained in many outcomes with a full-range justice measure than with a truncated justice measure*.

With that proposition in mind, Study 2 included three objectives. First, we sought to create items that tapped the rule violation portion of the injustice–justice continuum. Second, we aimed to unpack our findings in Study 1 by building theoretical arguments for why rule violation may be more strongly associated with some outcomes whereas rule adherence may be more strongly associated with others. Those arguments drew on concepts from the regulatory focus literature (Higgins, 1997; Wallace, Johnson, & Frazier, 2009)—in some ways, an outgrowth of the negativity bias literature. Third, we sought to use our new items—and those theoretical arguments—to test the effects of a full-range justice measure, over and above a truncated justice measure. In cases where the action in predicting an outcome resides with rule violation, a full-range measure should explain more variance than a measure that assesses only rule adherence.

Prevention and Promotion Focus

The existence of negativity bias can be explained using evolutionary arguments (Baumeister et al., 2001; Rozin & Royzman, 2001). For example, individuals should evolve to deal with the most important threats in their lives carefully and comprehensively. Given the risks associated with negative events (e.g., injury, death), an urgent and sophisticated appraisal of potential reactions is warranted. Such arguments echo concepts in the self-regulation literature. Regulatory focus refers to a set of cognitive processes that influence how employees recall, interpret, and draw upon relevant information during goal pursuit (Higgins, 1997; Wallace et al., 2009). Higgins (1997) identified two coexisting regulatory systems that can be distinguished by the types of concerns that are salient to individuals as goals are pursued. These two coexisting systems reside in different portions of the brain, and the activation of them depends on situational factors, induced primes, or chronic dispositional tendencies (Brockner & Higgins, 2001; Crowe & Higgins, 1997; Higgins, 1997; Wallace et al., 2009). One of those systems is prevention focus, which regulates concerns about security, safety, and obligations by fostering behaviors that are vigilant and responsible (Higgins, 1997; Wallace et al., 2009). This system seeks to prevent harm by enhancing sensitivity to the presence or absence of negative stimuli. For example, the prevention focus system would cause employees to be especially sensitive to signs

Justice Rule Adherence/Violation ("Full-Range" Justice Measurement)

"To what extent..."

Procedural "Are you able to express your views during those procedures?"
"Do your views go unheard during those procedures?" (R)

Distributive "Are those outcomes justified, given your performance?"
"Are those outcomes inappropriate, given your performance?" (R)

Interpersonal "Does [your supervisor] treat you in a polite manner?"
"Does [your supervisor] treat you in a rude manner?" (R)

Informational "Does [your supervisor] explain decision-making procedures thoroughly?"
"Is [your supervisor] secretive about decision-making procedures?" (R)

1	2	3	4	5
To a Very Small Extent	To a Small Extent	To a Moderate Extent	To a Large Extent	To a Very Large Extent

Figure 2. Full-range justice measurement.

that a supervisor dislikes them, given their desire to avoid being fired.

We propose that the prevention focus system can shed light on which outcomes should be especially sensitive to justice rule violation. More specifically, we argue that some outcomes are *prevention-laden*, meaning that they have concerns about security, safety, and obligation underlying them or that they represent behaviors that are vigilant and responsible. That description seems to fit the outcomes in the top half of Table 1. Contingent reactions represent a high level of vigilance given their dependence on context-specific, reasoned analysis. Superficial reactions, by extension, represent a low level of vigilance given the absence of any in-depth processing. The same can be said for expectation reactions, given that judgments of expectation fulfillment can be made with little effort and attention. Distraction, for its part, exemplifies a concern about safety and security, with monitoring, contingency planning, and investigating representing vigilant actions as a means of coping. Concerns about safety and security are also represented in the appraisal dynamics that trigger hostility, which occurs when some threat exists and counterattack (rather than flight) represents the best means of coping (Lazarus, 1991). Finally, counterproductive behavior could represent that counterattack.

We further propose that as a supervisor becomes more biased, more inequitable, more rude, and more dishonest, an employee feels less safe. Those concerns about safety trigger a cognitive preoccupation with the implications of the poor treatment and an emotional and behavioral tendency to fight back against it. Thus, justice rule violation becomes associated with more contingent reactions (as opposed to superficial or expectation reactions), more hostility, more distractions, and more counterproductive behavior. It is the prevention focus system that "greases" these connections by enhancing sensitivity to the presence or absence of injustice in order to prevent harm. By extension, we propose that a full-range justice measure explains more variance in the prevention-laden outcomes, given that truncated justice measures do not tap justice rule violation. Those predictions are encapsulated in the following hypotheses. Note that all of our hypotheses are stated in a somewhat untraditional fashion, with the prediction for full-range versus truncated measurement comprising the core of the predictions (and the differential effects of justice rule adherence and violation included in parenthetical hypotheses). We utilized this format for two reasons. First, it is those differential effects of rule violation and adherence that explain when full-range measurement should explain more variance than truncated measurement. Second, including the parenthetical hypotheses allowed us to do more than just predict the null in cases where we did not expect full-range measurement to explain incremental variance.

Hypothesis 1: A full-range justice measure will explain incremental variance in contingent reactions beyond a truncated justice measure (because justice rule violation is more associated with contingent reactions than is justice rule adherence).

Hypothesis 2: A full-range justice measure will not explain incremental variance in superficial reactions beyond a truncated justice measure (because justice rule violation is less

associated with superficial reactions than is justice rule adherence).

Hypothesis 3: A full-range justice measure will not explain incremental variance in expectation reactions beyond a truncated justice measure (because justice rule violation is less associated with expectation reactions than is justice rule adherence).

Hypothesis 4: A full-range justice measure will explain incremental variance in hostility beyond a truncated justice measure (because justice rule violation is more associated with hostility than is justice rule adherence).

Hypothesis 5: A full-range justice measure will explain incremental variance in distraction beyond a truncated justice measure (because justice rule violation is more associated with distraction than is justice rule adherence).

Hypothesis 6: A full-range justice measure will explain incremental variance in counterproductive behavior beyond a truncated justice measure (because justice rule violation is more associated with counterproductive behavior than is justice rule adherence).

What about the outcomes in the bottom half of Table 1? Understanding those outcomes requires understanding Higgins's (1997) second regulatory system. The promotion focus system regulates concerns about becoming one's ideal self by fostering behaviors that seek to aspire, accomplish, and grow (Higgins, 1997; Wallace et al., 2009). This system seeks to promote growth by enhancing one's sensitivity to the presence or absence of positive stimuli. For example, the promotion focus system would cause employees to be especially sensitive to signs that a supervisor respects them, given their desire to "climb the ranks" in the company. The preoccupation with the presence or absence of positive stimuli give the promotion focus system the ability to explain findings that reveal what might be termed a *positivity bias*.

We propose that the outcomes in the bottom half of Table 1 are *promotion-laden*, meaning that they have concerns about becoming one's ideal self underlying them or that they represent behaviors that seek to aspire, accomplish, and grow. Self-esteem can be viewed as a journey on which one is seeking the ideal, in terms of overall competencies, need fulfillment, value, and worth (Pierce et al., 1989; Rosenberg, 1965). Reciprocation encapsulates the "golden rule" of "do unto others" and lays at the core of social exchange relationships. Such relationships represent the ideal when it comes to work arrangements (Coyle-Shapiro, Shore, Taylor, & Tetrick, 2004), where employees move beyond "doing the minimum" by exchanging unspecified tangible and intangible benefits with authorities over a long-term, open-ended time frame (Blau, 1964; Shore, Tetrick, Lynch, & Barksdale, 2006). High levels of task performance and citizenship behavior are also markers of social exchange relationships, and those behaviors clearly represent aspiration and accomplishment.

We further propose that as a supervisor becomes more neutral, more equitable, more polite, and more forthcoming, an employee feels more motivated to strive toward the ideal. That desire to become the ideal triggers a focus on rewarding favorable treatment with cognitions and behaviors that convey aspiring, accomplish-

ing, and growing. Thus, justice rule adherence becomes associated with higher self-esteem, more reciprocation via social exchange relationships, higher task performance, and more frequent citizenship behavior. It is the promotion focus system that "greases" these connections by enhancing sensitivity to the presence or absence of justice in order to promote growth. By extension, we propose that a full-range justice measure will not explain more variance in the promotion-laden outcomes, given that truncated justice measures already tap justice rule adherence. Those predictions are encapsulated in the following hypotheses.

Hypothesis 7: A full-range justice measure will not explain incremental variance in self-esteem beyond a truncated justice measure (because justice rule violation is less associated with self-esteem than is justice rule adherence).

Hypothesis 8: A full-range justice measure will not explain incremental variance in social exchange perceptions beyond a truncated justice measure (because justice rule violation is less associated with social exchange perceptions than is justice rule adherence).

Hypothesis 9: A full-range justice measure will not explain incremental variance in task performance beyond a truncated justice measure (because justice rule violation is less associated with task performance than is justice rule adherence).

Hypothesis 10: A full-range justice measure will not explain incremental variance in citizenship behavior beyond a truncated justice measure (because justice rule violation is less associated with citizenship behavior than is justice rule adherence).

What about pleasantness and trust, the two remaining outcomes in Table 1? Our qualitative results showed that those themes surfaced approximately equally with the justice and injustice interview conditions. Might they be *both* prevention-laden *and* promotion-laden, conceptually? In the case of pleasantness, it represents a coarse happy-versus-sad affect that could be relevant to either safety or growth, depending on the secondary appraisal that differentiates it. For example, a stimulus identified as a threat could differentiate sad affect into hostility or a stimulus identified as an opportunity could differentiate happy affect into enthusiasm. In the absence of that secondary appraisal, however, pleasantness seems relevant to both regulatory systems. As for trust, it seems to clearly possess relevance to safety in addition to growth. Trusting one's coworkers is indeed part of a social exchange relationship—and therefore relevant to one's ideal self. But trust also involves a vulnerability that encapsulates issues of safety, security, and vigilance. We therefore offer two additional hypotheses:

Hypothesis 11: A full-range justice measure will explain incremental variance in pleasantness beyond a truncated justice measure (because justice rule adherence and violation are both associated with pleasantness).

Hypothesis 12: A full-range justice measure will explain incremental variance in trust beyond a truncated justice measure (because justice rule adherence and violation are both associated with trust).

Method

We recruited participants through an online classified advertisement system in five major cities in the southeastern United States. The advertisement invited readers to participate in a university study on leadership. To be eligible, participants had to be full-time employees who reported to a supervisor. They also had to be willing to fill out two separate surveys themselves and have a supervisor who would be willing to fill out a third (shorter) survey. Participants received $20 for the completion of their surveys, with supervisors receiving $5 for the completion of their survey. Interested recruits enrolled online, filled out a consent form and included some demographic information, and provided the name and e-mail address of their immediate supervisor. We then contacted the supervisor directly to fill out his or her survey.

A total of 507 participants registered to participate. Of those, 349 completed the first employee survey, for a 69% response rate. The second employee survey was completed by 245 employees. Of those, 158 had a supervisor who filled out the supervisor survey. That number represents an overall response rate of 31%. Listwise deletion of missing data reduced our final sample to 143 employee–supervisor pairs. Respondents came from a broad cross-section of industries, with retail, health care, professional services, building and construction, food and beverage, and education as six of the most represented. The employees were 40% male and 60% female, and 64% were White. Their average age was 35 years, their average tenure in their job was 4.5 years, and their average tenure with their current supervisor was 2.5 years. The supervisors were 49% male and 51% female, and 89% were White. Their average age was 44 years, and their average tenure in their job was 4 years.

The first employee survey contained measures of justice and injustice along with a series of distractor and control items. It also included measures of overall fairness and overall unfairness for use in assessing construct validity. The second employee survey was given 1 month later and included many of the constructs in Table 1. We separated the two employee surveys by 1 month as a procedural remedy for common method variance. Podsakoff, MacKenzie, Lee, and Podsakoff (2003) noted that temporal separation can remove some of the sources of common method variance, including consistency motif, implicit theories, and transient sources of affect. Moreover, Doty and Glick (1998) showed that temporal separation significantly reduced common method inflation. The supervisor survey was given 1 month after the second employee survey and assessed task performance, citizenship behavior, and counterproductive behavior. These constructs are commonly assessed by supervisor reports and the separation of sources represents another procedural remedy that reduces common method bias (Doty & Glick, 1998; Podsakoff et al., 2003).

Time 1 measures. We constructed measures of procedural, distributive, interpersonal, and informational justice rule violation by using Colquitt's (2001) measure as a guide. As with our interview questions, we created polar-opposite versions of the items, rather than negated-regular versions, in order to capture the presence of injustice (Schriesheim & Eisenbach, 1995). The resulting items are shown in Appendix B in bold. Given the potential for item-context effects, the ordering of the scales was randomized (Podsakoff et al., 2003).

Recall that Study 1 varied the nature of interview questions, such that some were regular in nature whereas others were "extreme," with adverbs such as *especially* or *particularly*. That variation was an attempt to explore whether reactions to justice and injustice depended on the extent of the rule adherence or violation (Beugré, 2005; Gilliland, 2008; Jones & Skarlicki, 2005). Although the Study 1 results revealed few effects for that extent contrast, we wanted to be able to explore this issue further in Study 2. To do so, we used a 7-point scale rather than a 5-point scale, with anchors ranging from 1 (*to an extremely small extent*) to 7 (*to an extremely large extent*). We reasoned that this longer scale would afford more opportunities to uncover differences between, say, a moderate extent of justice and a large extent of justice. We also felt that this longer scale would reduce the possibility of ceiling or floor effects. In general, however, our results revealed few significant curvilinearities in our results. Thus, as in Study 1, issues of "extent" do not seem to govern reactions to rule adherence or violation.

We also included measures of overall fairness and overall unfairness in the Time 1 survey to serve as a source of convergent and predictive validity for our rule adherence and violation items. Participants were instructed that the questions referred to their supervisor's actions during decision-making events and were asked to indicate to what extent (from 1, *to an extremely small extent*, to 7, *to an extremely large extent*) the actions matched those of the supervisor. The overall fairness items were "Does your supervisor act fairly?"; "Does your supervisor do things that are fair?"; and "Does your supervisor behave like a fair person would?" (coefficient $\alpha = .97$). The overall unfairness items were "Does your supervisor act unfairly?"; "Does your supervisor do things that are unfair?"; and "Does your supervisor behave like an unfair person would?" (coefficient $\alpha = .98$).

Finally, we included measures of trait positive affectivity (PA) and trait negative affectivity (NA) for use as controls. Controlling for trait affectivity is a statistical remedy for addressing common method bias (Podsakoff et al., 2003). We assessed trait affectivity using the "in general" instructions on the Positive and Negative Affect Schedule–Expanded Form (PANAS–X; Watson & Clark, 1994).

Time 2 measures. We measured the contingent, superficial, and expectation reactions concepts using scales developed for this study (see Appendix C). The lead-in to the items utilized the same frame as the justice scales: "With respect to the actions my supervisor engages in regarding pay, rewards, evaluations, promotions, and so forth." Pleasantness and hostility were measured with the PANAS–X (Watson & Clark, 1994) using the following instructions: "The section below contains a number of words that describe different feelings and emotions. Please indicate to what extent you typically feel this way when thinking about or interacting with your immediate supervisor." Given these instructions, pleasantness and hostility are most accurately termed *sentiments*— tendencies to respond affectively to particular persons or objects (Frijda, 1994). Sentiments are more long lasting than emotions and more connected to an object than mood. Distractions were assessed using Mayer and Gavin's (2005) focus of attention scale. We measured self-esteem using organization-based self-esteem, given that this conceptualization may be more endogenous than the more global form of the construct (Pierce et al., 1989). Trust was measured with the latest iteration of Mayer and colleagues' will-

ingness to be vulnerable scale (Schoorman, Mayer, & Davis, 2007). Finally, we used the Shore et al. (2006) scale to capture social exchange perceptions.

Time 3 measures. Supervisors rated their employees on three different aspects of job performance. Task performance was assessed by the scale created by Williams and Anderson (1991). To assess citizenship behavior and counterproductive behavior, we utilized scales with a supervisory target, as opposed to a coworker or organizational target. Citizenship behavior was assessed with a supervisor-referenced adaptation of Lee and Allen's (2002) scale, whereas counterproductive behavior was assessed with items from Jones (2009), which is a supervisor-referenced adaptation of Bennett and Robinson's (2000) scale.

Analyses to explore construct validity. Table 2 presents the descriptive statistics, zero-order correlations, and reliabilities for our justice and injustice scales. The means for the scales suggest that justice rule adherence was more prevalent than justice rule violation in our particular sample, consistent with research on the frequency of positive and negative events (Rozin & Royzman, 2001). All eight scales had strong reliabilities (ranging from .92 to .98), and the correlations between the justice scales and their injustice counterparts were strong (ranging from −.62 to −.68). As a check for convergent validity, we correlated the justice and injustice scales with our measures of overall fairness and overall unfairness. All four justice scales were correlated with overall fairness ($r = .65$ for procedural justice, .60 for distributive justice, .69 for interpersonal justice, and .72 for informational justice), and all four injustice scales were correlated with overall unfairness ($r = .68$ for procedural injustice, .64 for distributive injustice, .83 for interpersonal injustice, and .81 for informational injustice).

We assessed the factor structure of the justice and injustice measures using a confirmatory factor analysis in LISREL 8.72. Schriesheim and Eisenbach (1995) noted that positively and negatively worded items typically load on separate factors in such analyses, even when there are no substantive differences in item content (see also Podsakoff et al., 2003; Schmitt & Stults, 1985). We therefore assumed that our model would provide a significantly better fit to the data when the justice items and the injustice items loaded on separate factors. As expected, a model with two higher order factors—justice (with procedural, distributive, interpersonal, and informational justice as lower-order indicators) and injustice (with procedural, distributive, interpersonal, and informational injustice as lower order indicators)—provided a good fit to the data: $\chi^2(731, N = 139) = 1,049.94, p < .001$; comparative fit index (CFI) = .99; normed fit index (NFI) = .97; standardized

root mean square residual (SRMR) = .06. All of the scale items had strong and statistically significant loadings on their respective latent variables. The lower order latent variables also had strong loadings on both the justice factor (procedural = .84, distributive = .81, interpersonal = .88, informational = .96) and the injustice factor (procedural = .92, distributive = .81, interpersonal = .87, informational = .91). The two-factor model provided a significantly better fit than a model with one higher order justice–injustice factor that collapsed the justice and injustice items into four lower order distributive, procedural, interpersonal, and informational indicators: $\chi^2(736, N = 139) = 4,772.75, p < .001$; $\Delta\chi^2(5, N = 139) = 3,722.81, p < .001$. The two-factor model also provided a significantly better fit than a model with one higher order justice–injustice factor that had eight lower order indicators (i.e., the four justice factors and the four injustice factors): $\chi^2(732, N = 139) = 1,229.64, p < .001$; $\Delta\chi^2(1, N = 139) = 179.70, p < .001$.

We should highlight a number of issues with our factor-analytic results. First, the strong loadings of the procedural, distributive, interpersonal, and informational dimensions onto their higher order factors made it feasible to test our hypotheses at the justice and injustice levels of abstraction, as in Study 1. Colquitt (2012) suggested that it was appropriate to focus on higher order factors when the differences among the specific dimensions were not relevant to one's hypotheses (see also Colquitt & Shaw, 2005). Second, while keeping in mind the interpretational difficulties associated with positively and negatively worded factors (Podsakoff et al., 2003; Schmitt & Stults, 1985; Schriesheim & Eisenbach, 1995), the fit of our model allowed us to justify the separation of justice rule adherence and justice rule violation in the testing of our parenthetical hypotheses.

We also assessed the factor structure of our Time 2 and Time 3 dependent variables. With respect to Time 2, a nine-factor model provided a good fit to the data: $\chi^2(1,559, N = 139) = 484.26$; CFI = 1.00; NFI = .95; SRMR = .05. With respect to Time 3, a three-factor model provided a good fit: $\chi^2(116, N = 139) = 482.84$; CFI = .94; NFI = .92; SRMR = .09.

Results and Discussion

The descriptive statistics, correlations, and reliabilities for the Study 2 variables are shown in Table 3. The results of our regression analyses are shown in Tables 4–8. Those tables include two types of regressions. The first type examines whether the full-range justice measure shown in Appendix B explains incremental

Table 2

Correlations Among Justice and Injustice Dimensions

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. Procedural justice	4.59	1.44	.94							
2. Distributive justice	4.65	1.67	.74	.98						
3. Interpersonal justice	5.81	1.39	.63	.59	.96					
4. Informational justice	5.14	1.37	.74	.72	.79	.94				
5. Procedural injustice	2.64	1.35	−.66	−.59	−.59	−.70	.92			
6. Distributive injustice	2.73	1.73	−.51	−.62	−.49	−.58	.67	.95		
7. Interpersonal injustice	1.62	1.21	−.37	−.37	−.68	−.55	.60	.50	.97	
8. Informational injustice	2.07	1.30	−.51	−.47	−.56	−.63	.76	.66	.67	.92

Note. $N = 146$. Coefficient alphas on the diagonal. All correlations are significant at $p < .01$.

Table 3
Correlations Among Justice, Injustice, and Dependent Variables

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Justice	5.06	1.29	.97															
2. Injustice	2.24	1.15	−.79	.96														
3. Contingent reactions	3.70	0.70	.06	−.06	.88													
4. Superficial reactions	3.64	0.83	.50	−.43	.26	.93												
5. Expectation reactions	3.56	0.76	.64	−.55	.20	.45	.80											
6. Pleasantness	3.82	0.73	.64	−.60	.16	.45	.62	.85										
7. Hostility	1.52	0.87	−.47	.55	−.17	−.41	−.51	−.63	.95									
8. Distractions	2.69	0.97	−.57	.57	.01	−.36	−.49	−.50	.43	.88								
9. Counterproductive	1.34	0.53	−.37	.43	−.12	−.29	−.11	−.31	.32	.19	.93							
10. Self-esteem	4.01	0.71	.57	−.53	.20	.52	.63	.52	−.41	−.52	−.30	.94						
11. Trust	3.49	0.61	.56	−.54	.20	.35	.54	.55	−.49	−.48	−.25	.45	.71					
12. Social exchange	3.55	0.79	.67	−.64	.26	.47	.81	.73	−.54	−.63	−.20	.69	.68	.89				
13. Task performance	4.45	0.58	.38	−.33	.15	.24	.21	.34	−.23	−.25	−.61	.25	.34	.26	.88			
14. Citizenship behavior	4.22	0.69	.39	−.33	.21	.32	.24	.41	−.23	−.22	−.52	.30	.31	.29	.66	.89		
15. Trait PA	3.71	0.71	.41	−.30	.12	.37	.30	.35	−.15	−.21	−.24	.44	.15	.27	.39	.31	.89	
16. Trait NA	1.57	0.57	−.23	.31	−.05	−.31	−.17	−.25	.34	.12	.17	−.29	−.08	−.14	−.15	−.17	−.42	.88

Note. N ranges from 140 to 146. Coefficient alphas on the diagonal. All correlations greater than |.17| are significant at $p < .05$. PA = positive affect; NA = negative affect.

variance beyond the truncated measure that uses Colquitt's (2001) items in their original form. The full-range scale used in those analyses had an alpha of .98 after the injustice items were reverse-coded. The second type probes the parenthetical portion of our hypotheses by entering justice and injustice as separate scales simultaneously. In cases where full-range justice is predicted to explain incremental variance beyond truncated justice, injustice should have a unique effect when modeled alongside justice. We controlled for trait affectivity in all of our regressions by entering trait PA and NA in Step 1.

Hypothesis 1 predicted that full-range justice would explain incremental variance in contingent reactions beyond truncated

justice (because justice rule violation would be more associated with contingent reactions than justice rule adherence). That prediction was not supported, as neither justice nor injustice predicted contingent reactions (see Table 4). Hypotheses 2 and 3 predicted that full-range justice would not explain incremental variance in superficial reactions and expectation reactions beyond truncated justice (because justice rule violation would be less associated with those outcomes than justice rule adherence). Those predictions were supported, as only justice predicted superficial reactions and expectation reactions.

Hypotheses 4–6 predicted that full-range justice would explain incremental variance in hostility, distractions, and counterproduc-

Table 4
Regression Results for Contingent, Superficial, and Expectation Reactions

	Contingent reactions			Superficial reactions			Expectation reactions		
	β	ΔR^2	R^2	β	ΔR^2	R^2	β	ΔR^2	R^2
Controls									
1. Positive affect	.12	.02	.02	.30*	.17*	.17*	.28*	.09*	.09*
Negative affect	−.01			−.19*			−.06		
Full-range justice beyond (truncated) justice									
2. Positive affect	.11	.00	.02	.15	.13*	.30*	.04	.32*	.41*
Negative affect	−.00			−.15			.00		
Justice	.02			.40*			.62*		
3. Positive affect	.12	.00	.02	.15	.00	.30*	.06	.01	.41*
Negative affect	.00			−.14			.02		
Justice	−.06			.25			.34		
Full-range justice	.08			.16			.29		
Justice and injustice alongside one another									
2. Positive affect	.12	.00	.02	.15	.13*	.30*	.06	.32*	.41*
Negative affect	.00			−.14			.02		
Justice	−.02			.34*			.50*		
Injustice	−.04			−.08			−.15		

Note. N = 138.
* $p < .05$.

Table 5
Regression Results for Hostility, Distractions, and Counterproductive Behavior

	Hostility			Distractions			Counterproductive		
	β	ΔR^2	R^2	β	ΔR^2	R^2	β	ΔR^2	R^2
Controls									
1. Positive affect	−.01	.12*	.12*	−.19	.04	.04	−.21*	.06*	.06*
Negative affect	.34*			.03			.08		
Full-range justice beyond (truncated) justice									
2. Positive affect	.16	.18*	.29*	.04	.30*	.35*	−.08	.09*	.15*
Negative affect	.30*			−.02			.06		
Justice	−.46*			−.61*			−.33*		
3. Positive affect	.12	.06*	.35*	.00	.05*	.39*	−.12	.05*	.20*
Negative affect	.24*			−.08			−.01		
Justice	.30*			.08			.39		
Full-range justice	−.80*			−.73*			−.75*		
Justice and injustice alongside one another									
2. Positive affect	.12	.23*	.35*	.00	.35*	.39*	−.12	.14*	.20*
Negative affect	.24*			−.08			−.01		
Justice	−.15			−.32*			−.03		
Injustice	.40*			.36*			.37*		

Note. $N = 138$.
* $p < .05$.

tive behavior beyond truncated justice (because justice rule violation would be more associated with those outcomes than justice rule adherence). All three of those predictions were supported (see Table 5). Injustice was a significant predictor of hostility, distractions, and counterproductive behavior when modeled alongside justice. As a result, full-range justice explained incremental variance beyond truncated justice for all three outcomes.

Hypothesis 7 predicted that full-range justice would not explain incremental variance in self-esteem beyond truncated justice (because justice rule violation would be less associated with self-

Table 6
Regression Results for Self-Esteem

	Self-esteem		
	β	ΔR^2	R^2
Controls			
1. Positive affect	.39*	.21*	.21*
Negative affect	−.13		
Full-range justice beyond (truncated) justice			
2. Positive affect	.21*	.17*	.38*
Negative affect	−.09		
Justice	.46*		
3. Positive affect	.23*	.02*	.40*
Negative affect	−.06		
Justice	.05		
Full-range justice	.43*		
Justice and injustice alongside one another			
2. Positive affect	.23*	.19*	.40*
Negative affect	−.06		
Justice	.29*		
Injustice	−.21		

Note. $N = 139$.
* $p < .05$.

esteem than justice rule adherence). That prediction was partially supported (see Table 6). The relationship between injustice and self-esteem was indeed weaker than the relationship between justice and self-esteem, failing to achieve statistical significance. Still, that linkage was strong enough to allow full-range justice to explain a small amount of incremental variance in self-esteem.

Hypotheses 8–10 predicted that full-range justice would not explain incremental variance in social exchange perceptions, task performance, and citizenship behavior beyond truncated justice (because justice rule violation should be less associated with those outcomes than justice rule adherence). Two of those predictions were fully supported, with one receiving partial support (see Table 7). Only justice predicted task performance and citizenship behavior when modeled alongside injustice. As a result, full-range justice did not explain incremental variance in those outcomes. Injustice was significantly related to social exchange perceptions when modeled alongside justice, though its effect size was somewhat weaker. Still, that linkage was strong enough to allow full-range justice to explain a small amount of incremental variance in social exchange perceptions.

Hypotheses 11 and 12 predicted that full-range justice would explain incremental variance in pleasantness and trust beyond truncated justice (because justice rule adherence and violation would both be associated with those outcomes). Both of those predictions were fully supported (see Table 8). Both justice and injustice were significant predictors of those outcomes when modeled alongside each other. As a result, full-range justice did explain incremental variance in them.

General Discussion

The status quo in the justice literature is marked by a number of contradictory threads. Conceptually, the most visible theories in the literature appear to draw few distinctions between reactions to justice versus injustice (Folger & Cropanzano, 2001; Lind, 2001;

Table 7
Regression Results for Social Exchange Perceptions and Reciprocation Behaviors

	Social exchange			Task performance			Citizenship behavior		
	β	ΔR^2	R^2	β	ΔR^2	R^2	β	ΔR^2	R^2
Controls									
1. Positive affect	.26*	.08*	.08*	.37*	.14*	.14*	.29*	.10*	.10*
Negative affect	−.03			.00			−.04		
Full-range justice beyond (truncated) justice									
2. Positive affect	.01	.37*	.44*	.26*	.07*	.20*	.17	.07*	.17*
Negative affect	.03			.02			−.02		
Justice	.67*			.29*			.32*		
3. Positive affect	.04	.04*	.48*	.26*	.00	.20*	.18	.01	.18*
Negative affect	.08			.03			−.01		
Justice	.05			.23			.19		
Full-range justice	.65*			.06			.13		
Justice and injustice alongside one another									
2. Positive affect	.04	.40*	.48*	.26*	.06*	.20*	.18	.08*	.18*
Negative affect	.08			.03			−.01		
Justice	.41*			.26*			.26*		
Injustice	−.32*			−.03			−.07		

Note. *N* ranges from 139 to 140.
* $p < .05$.

Tyler & Lind, 1992; van den Bos & Lind, 2002). At the same time, scholars suggest that justice is a camouflaged phenomenon that often goes unnoticed, with injustice being the stronger driver of reactions (Bies, 2001; Cropanzano et al., 2011; Gilliland, 2008; Harlos & Pinder, 1999; Organ, 1990; Rupp & Spencer, 2006). Despite that assumption, the most common self-report measures ask only about adherence to justice rules (Colquitt, 2001; Moorman, 1991). A simplistic summary of that status quo would therefore resemble the following: "justice and injustice are interchangeable, unless injustice matters more, but studies only need to measure justice."

The results of our studies shed light on each one of those contradictions. Specifically, our results for our full-range justice measure show that studies could gain from measuring more than just rule adherence. After all, our full-range measure explained significant incremental variance for seven of our 12 outcomes. Our hypothesis testing allowed us to unpack the superiority of full-range measurement by decomposing the unique effects of rule adherence and rule violation. Those results show that justice and injustice are not merely interchangeable and that injustice often does not matter more than justice. When employees were interviewed about their reactions to rules such as consistency, accuracy, respect, justification, and equity, the adherence to those rules was associated with different intensities of the same constructs—and sometimes different constructs altogether—than the violation of those rules. Moreover, when kept separate in our regressions, justice rule adherence and violation both explained significant incremental variance in many cases. If reactions to justice and injustice were identical, one or the other of those predictors would have been redundant and non-significant in the regressions.

Table 8
Regression Results for Pleasantness and Trust

	Pleasantness			Trust		
	β	ΔR^2	R^2	β	ΔR^2	R^2
Controls						
1. Positive affect	.30*	.13*	.13*	.14	.02	.02
Negative affect	−.13			−.03		
Full-range justice beyond (truncated) justice						
2. Positive affect	.08	.29*	.42*	−.09	.30*	.32*
Negative affect	−.08			.02		
Justice	.59*			.60*		
3. Positive affect	.10	.02*	.44*	−.06	.03*	.35*
Negative affect	−.04			.06		
Justice	.12			.10		
Full-range justice	.49*			.53*		
Justice and injustice alongside one another						
2. Positive affect	.10	.31*	.44*	−.06	.33*	.35*
Negative affect	−.04			.06		
Justice	.40*			.39*		
Injustice	−.24*			−.26*		

Note. *n* ranges from 139 to 140.
* $p < .05$.

Our inductive theorizing in Study 1, together with our hypothesis development in Study 2, led us to propose that understanding the differential effects of justice rule adherence and violation requires marrying the literature on negativity bias with the literature on regulatory focus. It is true that rule violation was especially relevant to cognitively involved and effortful reactions (e.g., contingent reactions, distractions) and to "hot" reactions like hostility and counterproductive behavior. Such results complement earlier laboratory work (Gilliland, et al., 1998) and follow from the literature on negativity bias (Baumeister et al., 2001; Rozin & Royzman, 2001; Taylor, 1991). These findings can be explained using a regulatory focus lens by suggesting that such outcomes are prevention-laden—that they reveal the vigilance and concerns

about safety and security that are regulated by that system (Higgins, 1997; Wallace et al., 2009). Thus, as a supervisor becomes more biased, more rude, and more dishonest, an employee feels less safe. Those concerns about safety trigger a cognitive preoccupation with the implications of the poor treatment and an emotional and behavioral tendency to fight back against it.

The regulatory focus lens becomes especially valuable for explaining cases where justice was as strong (or stronger) than injustice. Contrary to the speculation in the literature and the predictions of negativity bias, justice rule adherence was just as predictive—and often more predictive—of trust, self-esteem, social exchange perceptions, task performance, and citizenship behavior. Those variables represent key mediators and outcomes in some visible models in the literature (Colquitt et al., 2013; Organ, 1990; Tyler & Lind, 1992), although the continuum truncation shown in Figure 1 may be partially responsible for the original rise and continued popularity of those models. Our theorizing proposed that these outcomes are promotion-laden—that they reveal concerns about becoming one's ideal self by seeking to aspire, accomplish, and grow (Higgins, 1997; Wallace et al., 2009). Put simply, as a supervisor provides more voice, shows more respect, and justifies decisions more comprehensively, an employee feels more aspirational. Those feelings trigger a desire to strive for the ideal, as encapsulated in a social exchange relationship (Blau, 1964; Coyle-Shapiro et al., 2004; Shore et al., 2006).

Implications for the Justice Literature

Our results provide implications for measurement, for theory, and for practice. First and foremost, our results illustrate the value in using the kind of full-range measurement strategy exhibited in Figure 2. For a measure like Colquitt's (2001), that strategy involves combining his original items with reverse-coded versions of the items in Appendix B. Doing so allows scholars to ensure that continuum truncation is not missing "the action" for a given outcome in terms of its reactivity to the violation or adherence portion of the continuum. The importance of this call varies across outcomes, of course. A study focused on predicting citizenship behavior could likely get by with a truncated justice measure, given the greater predictive power of justice for that outcome. A study focused on predicting counterproductive behavior would likely gain a great deal from full-range justice measurement, however.

Of course, using 40 items to assess the full range of justice may be impractical in some field studies. Here the decision making could turn to the dimension level, given that all justice dimensions may not be uniquely relevant to the research question. Consider, for example, a study focused on coping with negative managerial treatment—the kind of topic that might be examined with an abusive supervision or social undermining lens (Duffy, Ganster, & Pagon, 2002; Tepper, 2000). That sort of study might include only the eight full-range interpersonal justice items. Such decisions echo the logic often used by personality scholars, who make decisions about narrow versus broad personality dimensions based on the nature of the outcome they are predicting (e.g., Dudley, Orvis, Lebiecki, & Cortina, 2006).

To return to a topic raised earlier, we are not suggesting that our justice rule adherence and justice rule violation items be used in a bivariate fashion—as if they are two separate constructs. At first blush, this treatment seems at odds with conventions in the eval-

uations and affect literatures (Cacioppo & Berntson, 1994; Cacioppo et al., 1997; Larsen & Diener, 1992; Russell, 1980; Watson & Tellegen, 1985; Yik et al., 2011). Work in those literatures has shown, for example, that individuals can simultaneously have positive evaluations of blood donation (e.g., it makes them proud) and negative evaluations of blood donation (e.g., it leaves them weakened). Similarly, individuals can simultaneously feel positive affect (e.g., excited, energetic) and negative affect (e.g., nervous, upset). Yet positive and negative evaluations and positive and negative affect are often aggregates of concepts that are not themselves bipolar. Psychological pride is not antithetical to physiological weakness; excitement is not antithetical to nervousness. It would be difficult for donating blood to make someone feel both strengthened and weakened, just as it would be difficult for someone to feel both excited and sluggish.

By the same logic, it seems difficult to deem the same decision event both accurate and inaccurate, equitable and inequitable, respectful and disrespectful, and honest and dishonest. More pragmatically, using our justice rule adherence and justice rule violation items in a bivariate fashion would add still more complexity to an already complex landscape. Consider a study that assesses all four justice dimensions in reference to both a specific supervisor and the larger organization. Assuming that the dimensions are not used as indicators of a higher order construct, there would already be eight independent variables—all of which would be moderately to highly correlated. Further separating justice rule adherence from justice violation would double that number, with 16 independent variables in all of the regressions or structural equation models.

It may prove conceptually valuable, however, to view overall fairness and overall unfairness in bivariate terms. Overall fairness is an aggregate evaluation formed from the bracketing of multiple justice events, experiences, and dimensions (Ambrose & Schminke, 2009; Choi, 2008; Colquitt, 2012; Cropanzano, Byrne, Bobocel, & Rupp, 2001; Kim & Leung, 2007). As such, overall fairness and overall unfairness resemble the positive and negative evaluations, and the positive and negative affect, that have been studied in bivariate terms. Although the utility of this approach would need to be explored in future research, it could allow scholars to capture, say, a boss who was fair in some respects (e.g., chronic procedural and informational rule adherence) but unfair in other respects (e.g., chronic distributive and interpersonal rule violation). Indeed, it may be that those feelings of overall fairness and overall unfairness serve as partial carriers of the regulatory focus dynamics that underlie our predictions.

With respect to theory, considering whether a given model's mechanisms are promotion-laden or prevention-laden could help gauge its relevance to justice versus injustice. For example, the relational model's core mechanism is self-esteem, with treatment used as a signal of the degree to which employees are valued by authorities (Tyler & Lind, 1992). Because that mechanism is more promotion-laden, it may be that tests of the relational model can rely on truncated justice measures without suffering a loss in variance explained. In contrast, the core mechanism in fairness theory is counterfactual thinking, with individuals judging the accountability of a supervisor for a given event by asking whether the supervisor could have and should have acted differently and whether well-being would have been better if the event had played out differently (Folger & Cropanzano, 1998, 2001). That mechanism seems more prevention-laden, resembling the contingent

reactions and distraction concepts in our studies. If so, tests of fairness theory would gain more from full-range justice measures that sampled the violation end of the continuum in Figure 1.

With respect to practice, our results have clear implications for the literature on justice training (see Skarlicki & Latham, 2005, for a review). Specifically, our results have implications for the supervisors who are targeted for training and the criteria used to evaluate training. The seminal study on justice training was focused on improving citizenship behavior (Skarlicki & Latham, 1996). Judging from the pretest measures, the employees in the study already perceived above-average levels of justice rule adherence. Thus, the training wound up making supervisors "ever more just," which was indeed associated with increases in citizenship behavior. A very different focus was seen in a more recent justice training study (Greenberg, 2006). That study focused on reducing insomnia in a sample of hospital nurses. Judging from the control group measures, the employees in the study perceived below-average levels of justice rule adherence. Thus, the training wound up making supervisors "less unjust," which was indeed associated with decreases in insomnia among the nurses.

We would argue that training is more effective when preexisting levels of justice rule adherence or violation are congruent with the criteria used for evaluation. If rule violation pervades the unit, then improving prevention-laden outcomes using justice training may be more practical than improving promotion-laden outcomes. Similarly, if rule adherence pervades the unit, then improving promotion-laden outcomes using justice training may be more practical than improving prevention-laden outcomes. That proposition also has implications for the instructional materials used in justice training. Both of the studies cited included a mix of lectures about justice rules, case studies, group discussions, and role plays (Greenberg, 2006; Skarlicki & Latham, 1996). Reducing justice rule violations would likely involve a different set of case studies and role plays than would increase justice rule adherence.

Our results also have implications for the way organizations assess the fairness of supervisors. How supervisors treat their employees is likely to be assessed in either 360° feedback tools that are used for development purposes or formal performance appraisals that are completed by a supervisor's own bosses. It may be that relying on a full-range measurement approach in those kinds of assessments allow for more nuanced feedback for supervisors. Item-level feedback could show them which rules they simply need to stop violating and for which rules they need to strive for ever more adherence. Such nuanced feedback would be especially valuable to supervisors who strive for effective treatment on a day-to-day basis.

Limitations

The studies reported herein have some limitations that should be noted. Although we used three waves of data in Study 2 to reduce common method bias, our data still represent a static picture of what is actually a dynamic phenomenon. Taylor (1991) noted that the experience of bad versus good events depends in part on timing, as psychological mechanisms can conspire to minimize the effects of negative events over the long term. Future research would be needed to examine reactions to justice rule adherence and violation over time to see if reactions dissipate differentially. In addition, our results are derived from a sample where rule adherence was experienced more frequently than rule violation, based on the means of the scales in

Study 2. Some of the negativity bias mechanisms depend in part on those sorts of base rates, so our results may not generalize to settings where injustice is the rule, rather than the exception. Finally, we were not able to replicate our Study 1 findings for contingent reactions in Study 2. The contingencies in one's reactions may not be adequately captured with self-report items. Some other method, such as verbal protocol analysis (Barber & Wesson, 1998), might be needed to examine such effects.

Conclusion

In his review of research on interpersonal treatment, Bies (2001) noted that narratives about treatment often gravitate to injustice, because injustice is visceral, experiential, existential, and "hot and burning" (p. 90). Many individuals can relate to those adjectives, and our own results support the intensity of such experiences. As justice scholars, it even becomes tempting to suggest that the moniker for the literature is wrong—that it should instead be *organizational injustice*. Yet, searches of poetry databases (e.g., www.poets.org) and famous quote collections (e.g., www.great-quotes.com) yield many more writings on justice than injustice. Such disparities imply that justice does matter in some unique way, and our own results reveal its importance for promotion-laden outcomes. Taken together, our studies support the notion that reactions to justice and injustice differ in psychologically meaningful—and explainable—ways. As a result, scholars would gain from sampling the full range of the adherence-violation continuum for justice rules.

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(*Appendices follow*)

Appendix A

Study 1 Interview Questions

Listed below are the participant instructions and interview questions. The justice rule adherence version immediately precedes the justice rule violation version for each question, with relevant differences shown in italics for ease of readability. The bracketed text represents the extreme worded version of the justice and injustice questions.

Procedural Questions

Managers make a number of important decisions that affect their employees. They may decide performance evaluations, they may resolve conflicts, they may allocate work assignments, and they may decide bonuses, raises, and salaries. This next set of questions asks about how you have reacted to the decision-making procedures used by the managers for whom you've worked.

• How do you react when managers use decision-making procedures that are [especially] *neutral*? / How do you react when managers use decision-making procedures that are [especially] *biased*?

• How do you react when managers use decision-making procedures that are [particularly] *consistent* over time? / How do you react when managers use decision-making procedures that are [particularly] *inconsistent* over time?

• How do you react when managers use decision-making procedures based on [particularly] *accurate* information? / How do you react when managers use decision-making procedures based on [particularly] *inaccurate* information?

• How do you react when managers *consider* your views and opinions during decision-making procedures [more than normal]? / How do you react when managers *disregard* your views and opinions during decision-making procedures [more than normal]?

Interpersonal Questions

Managers communicate with employees as decision-making procedures are implemented. This next set of questions asks about how you have reacted to such communications with the managers for whom you've worked.

• How do you react when managers communicate in a [particularly] *respectful* manner? / How do you react when managers communicate in a [particularly] *rude* manner?

• How do you react when managers use [especially] *appropriate* language during communications? / How do you react when managers use [especially] *improper* language during communications?

Informational Questions

Managers explain decision-making procedures to employees as those procedures are implemented. This next set of questions asks about how you have reacted to such explanations with the managers for whom you've worked.

• How do you react when managers *provide* justifications [more frequently than normal] for their decision-making procedures? / How do you react when managers *withhold* justifications [more frequently than normal] for their decision-making procedures?

• How do you react when managers explain decision-making procedures in a [particularly] *truthful* manner? / How do you react when managers explain decision-making procedures in a [particularly] *dishonest* manner?

Distributive Questions

Managers make a number of important decisions that affect their employees. They may decide performance evaluations, they may resolve conflicts, they may allocate work assignments, and they may decide bonuses, raises, and salaries. This next set of questions asks about how you have reacted to the decisions made by the managers for whom you've worked.

• How do you react when managers make decisions that are [especially] *equitable*, taking into account your skills, effort, and performance? / How do you react when managers make decisions that are [especially] *inequitable*, taking into account your skills, effort, and performance?

(Appendices continue)

Appendix B

Injustice Items

Existing justice items are included in regular typeface. Injustice items are in bold and are reverse scored (denoted with "R").

Full-Range Procedural Justice

The questions below refer to the procedures your supervisor uses to make decisions about pay, rewards, evaluations, promotions, and so forth. To what extent:

1. Are you able to express your views during those procedures?
2. **Do your views go unheard during those procedures? (R)**
3. Can you influence the decisions arrived at by those procedures?
4. **Do the decisions arrived at by those procedures lack your input? (R)**
5. Are those procedures applied consistently?
6. **Are those procedures applied unevenly? (R)**
7. Are those procedures free of bias?
8. **Are those procedures one-sided? (R)**
9. Are those procedures based on accurate information?
10. **Are those procedures based on faulty information? (R)**
11. Are you able to appeal the decisions arrived at by those procedures?
12. **Are the decisions arrived at by those procedures "set in stone"? (R)**
13. Do those procedures uphold ethical and moral standards?
14. **Are those procedures unprincipled or wrong? (R)**

Full-Range Distributive Justice

The questions below refer to the outcomes you receive from your supervisor, such as pay, rewards, evaluations, promotions, and so forth. To what extent:

1. Do those outcomes reflect the effort you have put into your work?
2. **Are those outcomes inconsistent with the effort you have put into your work? (R)**
3. Are those outcomes appropriate for the work you have completed?
4. **Are those outcomes insufficient, given the work you have completed? (R)**
5. Do those outcomes reflect what you have contributed to your work?

6. **Do those outcomes contradict what you have contributed to your work? (R)**
7. Are those outcomes justified, given your performance?
8. **Are those outcomes inappropriate, given your performance? (R)**

Full-Range Interpersonal Justice

The questions below refer to the interactions you have with your supervisor as decision-making procedures (about pay, rewards, evaluations, promotions, and so forth) are implemented. To what extent:

1. Does he/she treat you in a polite manner?
2. **Does he/she treat you in a rude manner? (R)**
3. Does he/she treat you with dignity?
4. **Does he/she treat you in a derogatory manner? (R)**
5. Does he/she treat you with respect?
6. **Does he/she treat you with disregard? (R)**
7. Does he/she refrain from improper remarks or comments?
8. **Does he/she use insulting remarks or comments? (R)**

Full-Range Informational Justice

The questions below refer to the explanations your supervisor offers as decision-making procedures (about pay, rewards, evaluations, promotions, and so forth) are implemented. To what extent:

1. Is he/she candid when communicating with you?
2. **Is he/she dishonest when communicating with you? (R)**
3. Does he/she explain decision-making procedures thoroughly?
4. **Is he/she secretive about decision-making procedures? (R)**
5. Are his/her explanations regarding procedures reasonable?
6. **Are his/her explanations regarding procedures unacceptable? (R)**
7. Does he/she communicate details in a timely manner?
8. **Does he/she communicate details too slowly? (R)**
9. Does he/she tailor communications to meet individuals' needs?
10. **Are his/her communications "generic" or "canned"? (R)**

(*Appendices continues*)

Appendix C

Unpublished Outcome Measures

"R" indicates that the item is reverse scored.

Contingent Reactions

1. My responses to those actions depend on a number of factors.
2. My responses to those actions vary according to the circumstances.
3. I react in a number of different ways, depending on the situation.
4. The nature of the situation influences my reactions.

Superficial Reactions

1. I tend to view those actions positively.
2. I tend to think those actions are good.

3. I react to those actions favorably.
4. I tend to view those actions negatively. (R)
5. I tend to think those actions are bad. (R)
6. I react to those actions unfavorably. (R)

Expectation Reactions

1. My supervisor's actions meet my expectations.
2. My supervisor acts as he/she should.
3. My supervisor's actions are acceptable.
4. My supervisor acts like the prototypical boss.