

The Role of Societal Benefits and Fairness Concerns Among Decision Makers and Decision Recipients

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Abstract Four experiments examined the role of costs and benefits versus procedural and distributive justice for procedural fairness and procedural evaluations among decision makers and decision recipients. Experiments 1 and 2 examined the responses of actual judges in a 2 (high versus low benefit) × 2 (search procedure conducted respectfully versus disrespectfully) randomized factorial. In both studies judges evaluated procedures differently than is typical among samples of decision recipients: outcome concerns strongly influenced both procedural evaluations and procedural fairness while procedural concerns such as voice and respect were minimally influential. Whereas fairness concerns continued to be important among these decision makers, outcome fairness was more influential than procedural fairness. Studies 3 and 4 varied role (authority versus subordinate), procedural respect, and societal benefits. Both experiments supported our predictions that procedural criteria would dominate the procedural evaluations of subordinates whereas outcome concerns such as societal benefits would dominate the procedural evaluations of authorities.

Keywords Procedural justice · Distributive justice · Fairness · Authority · Legal decisions

Courts, including the U.S. Supreme Court, have repeatedly reviewed cases in which individual rights are pitted against the state's authority to restrict those rights when a predictive tool suggests that the individual is committing or is likely to commit a criminal act. For example, in a series of cases (e.g., *U.S. v. Mendenhall*, 1980; *Reid v. Georgia*, 1980; *Florida v. Royer*, 1983; *U.S. v. Montoya De Hernandez*, 1985; *U.S. v. Sokolow*, 1989) the Supreme Court considered the use of drug courier profiles in U.S. airports. Such profiles specify variables thought to predict the transportation of illicit drugs (e.g., arriving from a source city, being the last person to leave the plane, and not claiming baggage). At issue in these cases was the passenger's Fourth Amendment protection against search and seizure in the absence of probable cause. The Court had to decide

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whether sufficient cause existed to satisfy Fourth Amendment protections. In such cases the courts have typically described their review process as a balancing of several considerations: the risk of a false positive error; the harm to the target of a search caused by a false positive error; and the offsetting societal gain achieved by using the predictive technology for the purpose being pursued by the law (Monahan & Walker, 1994).

What the courts are asked to decide in such cases is the propriety of a legal procedure, and they have described their own decision making in these cases as a utilitarian balancing of societal benefits and individual harms. This cost-benefit analysis contrasts sharply with several decades of research demonstrating the importance of procedural criteria, particularly procedural justice criteria, for procedural evaluations. One of the key predictions of procedural justice theories is that satisfaction with dispute resolution procedures is based upon an assessment that the procedures are enacted fairly (Deutsch, 1985; Folger, 1984; Lerner & Lerner, 1981; Tyler, 1984). Furthermore, procedural justice theories (Folger & Cropanzano, 1998; Leventhal, Karuza, & Fry, 1980; Lind & Tyler, 1988; Thibaut & Walker, 1975; Van Den Bos & Lind, 2002) specify that procedural fairness evaluations are based upon procedural criteria (e.g., whether the disputants were given an opportunity to explain their side of the story, and whether they were treated respectfully) rather than distributive criteria (e.g., whether the procedures produced fair or beneficial outcomes).

The gap between the justices' speculation about their reliance on cost-benefit criteria and psychological theorizing about the nature of procedural evaluations appears even greater in light of a shift away from instrumental theories of procedural justice (Thibaut & Walker, 1975) to relational justice theories (Lind & Tyler, 1988; Tyler, 1989; Tyler & Lind, 1992) and interactional justice theories (Bies, 1987, 2001, 2005; Greenberg, 1993, 2004, 2006). Whereas the instrumental theories assumed an underlying concern with fair and beneficial outcomes, the relational theories focus on symbolic criteria such as trustworthy authorities, unbiased decision making, and respectful and dignified treatment. Similarly, interactional justice theories emphasize interpersonal considerations such as providing explanations (Bies, 1987; Bies & Moag, 1986; Folger & Martin, 1986; Folger, Rosenfield, & Robinson, 1983) and respectful treatment (Folger, 1993; Skarlicki & Folger, 1997).

Numerous studies have supported these theories' claims regarding the centrality of procedural criteria for procedural satisfaction and procedural fairness. For example, Tyler's (1984) survey of criminal defendants revealed that fair treatment was a better predictor of their satisfaction with the courts than either absolute outcome or outcome fairness. Similarly, Tyler (1989) reported that Chicago residents' satisfaction with their treatment by legal authorities was better predicted by their sense of fair treatment than either absolute outcomes or outcome fairness. Furthermore, studies (e.g., Tyler, 1989, 1994) have supported the claim that procedural justice judgments are more responsive to relational concerns such as politeness and respect, than to instrumental concerns such as decision control.

The importance of procedural concerns for satisfaction and fairness judgments has also been well established in extra-legal settings, including organizational (e.g., Brockner & Weisenfeld, 1996; Folger & Cropanzano, 1998; Greenberg, 1987, 1994), and political (e.g., Tyler & DeGoey, 1995; Tyler, Rasinski, & McGraw, 1985) ones. In fact, this finding is so well established that Brockner et al. (2001) referred to it as "one of the most robust findings in the justice literature" (p. 301).

However, this justice research has been conducted, overwhelmingly, among decision recipients rather than decision makers. In light of the Justices' speculation about the concerns driving their decisions, it is natural to ask whether these theories generalize to decision makers. There are some reasons to believe they do not. The theories are based upon the motives of those who are the targets of these procedures, or the recipients of the allocations being made, rather than those

of the persons conducting the procedure or deciding upon the allocations. So, Leventhal, Karuza, and Fry (1980) and Thibaut and Walker (1975, 1978) based their theories on the assumption that those who are evaluating the procedures are concerned with maximizing their self-interest, an unlikely concern among decision makers such as the justices considered above, who have no immediate outcomes at stake. Similarly, Lind and Tyler (Lind & Tyler, 1988; Tyler & Lind, 1992) based their group value and relational theories on the assumption that the individuals targeted by procedures are concerned with their standing in social groups and their relations with group authorities.

While we are unaware of any systematic examination of the effect of role (authority versus subordinate) on the importance and meaning of procedural fairness, or on the relative importance of fairness versus outcomes for procedural fairness and satisfaction, several studies are informative in this regard. Two surveys of managers by Tyler and Griffin (1991) revealed that procedural and distributive fairness mattered when the goal was to enhance favorable employee relations, but that neither type of fairness was relevant when the goal was increased productivity. Several other studies have compared the importance of fairness and procedural concerns for both authorities and subordinates. A survey about conflict resolution among managers and non-managers by Lissak and Sheppard (1983) found fairness a top priority among non-managers, whereas managers rated fairness less important than getting at the facts, resolving the dispute, and reducing the likelihood of future conflicts. Studies by Field and House (1990) and Heilman, Hornstein, Cage, and Herschlag (1984) suggest that subordinates are more concerned than authorities with opportunities for disputant participation in conflict resolution. Similarly, a role play study by Houlden, LaTour, Walker, and Thibaut (1978) found that process control enhanced procedural preferences and procedural fairness for litigants but not third parties, and that decision control had a greater effect on procedural preferences of third parties than litigants. Finally, a study by Harris and Hogan (1992, as cited in Hogan, Curhpy, & Hogan, 1994), found that subordinates' evaluations of their managers were influenced by the manager's trustworthiness whereas the managers' bosses were more influenced by the manager's technical expertise.

Collectively, these findings are consistent with others pointing to the importance of one's perspective for shaping the manner in which justice judgments are rendered (Ambrose & Cropanzano, 2003; De Cremer & Alberts, 2004; Diekmann, Samuals, Ross, & Bazerman, 1997; Finkel, 2000; Huo, 2003; Lupfer, Weeks, Doan, & Houston, 2000; Van Den Bos & Lind, 2001; Van Yperen, Van Den Bos, & De Graaff, 2005). However, while some of these studies manipulated role, none incorporated role as an experimental variable in a design that permits a comparison of the importance of procedural versus outcome concerns for procedural satisfaction, none examined role effects on the meaning and importance of procedural fairness, and none included role as an experimental variable in a design that measured the importance of the relational concern of respectful treatment.

In the studies described below, we begin an inquiry into whether and to what extent decision makers share decision recipients' concern with procedural fairness. Our review of the relevant literature suggests the potential for a paradox of considerable consequence: judges, or other decision makers' (e.g., police officers, politicians, or organizational managers) reliance on outcome decision criteria might produce dissatisfaction among decision recipients due to the subordinates' focus on procedural decision criteria.

The goal of Studies 1 and 2 is to provide a test of the outcome-driven model proposed by the court. Two variants of that model are considered. The *Direct Outcome Model* proposes that among authorities, outcome concerns have a direct effect on procedural evaluations, and these concerns are not mediated by fairness judgments. The *Fairness-Mediated Outcome Model* is a variant of the outcome model that retains the fairness effect on evaluations postulated by both procedural and distributive (Adams, 1965; Homans, 1961; Walster, Berscheid, & Walster,

1973) justice theories. It proposes that fairness judgments mediate the influence of outcome concerns on procedural evaluations among authorities. These two models will be compared with a *Procedural Justice Model* (Lind & Tyler, 1988; Thibaut & Walker, 1975; Tyler, 1989), which predicts that procedural evaluations will be based on procedural criteria, and that the influence of these procedural criteria on procedural evaluations will be mediated by procedural fairness.

In order to test these competing models, we sent a summary of a fictitious search and seizure case to a sample of state appellate court judges (Study 1) and state circuit court judges (Study 2) and asked them to complete a questionnaire about their reactions to, and their likely decision in this case. The case describes a defendant's appeal of his conviction based on the argument that the search leading to his arrest violated his fourth amendment rights. Since the defendant's appeal challenges the search procedure that led to his arrest, the judges' decision is a procedural evaluation. The vignette varied according to the procedural criteria employed to describe the search procedure and according to the outcome of the search. A test of the three competing models is conducted by hierarchical regression analyses on the judges' decision in this case.

Study 1

Method

A brief case summary (approximately 1,800 words) and a 33-item questionnaire were sent to 187 state appellate level judges from nine Midwestern states. The materials described a hypothetical case in which an airline passenger was stopped for questioning based upon the results of a technology called voice stress analysis. The Voice stress analysis (VSA) was chosen to minimize judges' ability to base their decisions on existing case law.

The materials explained that in order to curb hijackings airline security had begun to employ VSA for the detection of weapons. Regardless of their experimental condition, the judges were told that the passenger had been required to answer a series of questions before boarding his flight. His answers to these questions were monitored by VSA. When his responses indicated stress, a security officer was summoned who took over the questioning. After further questioning security officers searched the passenger's luggage. Based upon the materials discovered in his luggage, he was arrested and eventually tried and convicted (for possession of marijuana or attempted hijacking, depending on the experimental condition). He is now appealing his conviction, claiming that the search and seizure exceeded the reasonableness standard for investigative stops (the reasonableness of an investigative stop depends on balancing the need to search against the invasion which the search entails) and that his conviction should be overturned. The scenario was presented to the judges in the form of facts stipulated to by both sides to the case, and the arguments presented at trial.

The scenario differed in its details according to the following experimental conditions:

Procedure administered respectfully

The procedural manipulation varies procedural criteria that are central to several justice theories. Because both Leventhal's (1980) and Thibaut and Walker's (Thibaut & Walker, 1975, 1978) theories of procedural justice identify having one's say or "voice" as a central procedural concern, the judges in this condition were told that the defendant was permitted an opportunity to explain why he might be triggering the VSA. Consistent with group value theory and interactional justice theory (Bies, 1987; Bies & Moag, 1986; Skarlicki & Folger, 1997) the judges in this condition were also told that the police were polite and respectful in their encounter with the appellant.

Procedure administered disrespectfully

In this condition, the security officers who questioned the passenger were rude and hostile (e.g., using obscenities, and kicking his luggage across the interrogation room). In addition, the officers never allowed the passenger an opportunity to explain why he might be triggering the VSA. The officers also did not identify themselves as police officers until late in the procedure. Arguments presented during the trial pointed out that in a recent survey of 1000 persons stopped and questioned because of the VSA test, 60% of them asserted that the police had treated them in a rude and disrespectful manner.

Outcome: High benefit

In this condition, upon searching the passenger's luggage, the security officers found a .45 caliber pistol. In addition to the successful search, arguments pointed out that in the past year there had been 130 attempted airline hijackings in which the only weapon employed was a small firearm. The state's attorney pointed out that it was expected that VSA could cut the rate of such attempts in half.

Outcome: Low benefit

In this condition, upon searching the passenger's luggage, the security officers found 1 marijuana cigarette. Arguments to the justice pointed out that in the past year there had been 4 attempted airline hijackings in which the only weapon employed was a small firearm. The state's attorney pointed out that it was expected that VSA could cut the rate of such attempts in half.¹

After reading this scenario, the judges completed a questionnaire concerning their perceptions of the VSA procedure in this case, their expectations regarding the use of VSA in the future, the costs and benefits of VSA in this and future cases, and their likely decision.

Measures

Several measures were employed in order to examine the judges' concern with procedures versus outcomes. Except when indicated, the measures in Studies 1–4 items were measured with 9-point bipolar adjective response scales.

The measures of procedural criteria included ones about the manipulated criteria of voice and respect. Furthermore, since both Leventhal's and Thibaut and Walker's theories as well as group value theory (Tyler, 1989; Tyler, 1994) point to the importance of unbiased or neutral decision makers, the judges were asked whether the legal procedure employed in this case was administered in a non-biased fashion.

The measures of outcome criteria tap the manipulated variable of societal costs and benefits—variables listed by the justices as central to their decisions in the cases discussed above, and ones identified by Monahan and Walker (1994) as critical in Fourth Amendment cases like the

¹ In order for a strong manipulation of societal benefits, our outcome manipulation deliberately confounded the benefit of this particular search (finding a gun versus a marijuana cigarette) with the long-term benefits that might be expected if this procedure is permitted to continue (4 vs. 130 attempted hijackings per year). This confound is present in Studies 1 & 2, but not in Studies 3 or 4. While this makes it impossible to disentangle the contribution of these two components in the first two studies, we are especially concerned with the theoretical consequences of the general impression of benefits, and leave the more practical issue regarding the contribution of each benefit to be sorted out in subsequent research.

one examined in this study. The judges also answered several questions about the fairness of the VSA procedure and the outcomes resulting from its application. Finally, the judges were asked to indicate how they would rule in this case (1 = in favor of the state; 9 = in favor of the defendant), $M = 4.65$, $SD = 2.79$. Of course, in an actual case, judges' decisions would be dichotomous. We solicited both interval- and dichotomous-level responses (point-biserial $r = .80$), but prefer the interval level variable as a dependent measure for its statistical advantages. The construction of these composite measures was guided by the results of a principal components analysis with varimax rotation on components with eigenvalues greater than 1.0. Table 1 shows the items employed for the composite measures, and the reliability, mean, and standard deviation of the composites.

Results

Completed questionnaires were received from 70 judges, for a response rate of 37%. The response rate was not significantly different across the experimental conditions, $\chi^2(1, N = 70) = .23$, $p > .10$. As can be seen in Table 2, the procedure manipulation had a substantial effect ($d = 2.9$) on the respondents' report of how respectfully the passenger was treated, and a sizeable effect ($d = .92$) on perceived bias. The outcome manipulation also had the expected effect on the respondents' report of the societal benefits resulting from the procedure. It is noteworthy that the effect size of the outcome manipulation ($d = .85$) on societal benefits was considerably smaller than the effect size of the respect manipulation on perceived respect. There were no other main effects of either manipulation on these dependent measures. There was one significant procedure by outcome interaction on the dependent measure of societal costs (Since this interaction was not hypothesized and does not occur on other manipulation checks or on analyses involving the key dependent variables of procedural fairness or legal decisions, no follow-up comparisons were conducted).

Hierarchical regression was employed to test three competing models of procedural evaluations using the judges' decisions favoring the state or the defendant as the dependent variable.² These analyses are summarized in column 1 of Table 3, which shows the variables entered in each of the four steps of the hierarchical analyses, and the test of significance for each block. In these regressions, support for the direct outcome model would be revealed by effects of the outcome manipulation in block 1, and by effects of societal costs or benefits in block 3, unmediated by procedural fairness or outcome fairness in block 4. Support for the fairness mediated outcome model would be revealed by effects of the outcome variables in blocks 1 or 3, mediated by procedural fairness or outcome fairness in block 4. Finally, support for the procedural fairness model would be revealed by effects of the procedural manipulation in block 1, or the measures of respect, bias, or infringement in block 3, mediated by procedural fairness in block 4.

In block 1, when the manipulated variables of procedure and outcome were entered, only the outcome manipulation uniquely improved the fit of the model. The interaction between the manipulated variables was non-significant in block 2. In block 3, when the measured variables of societal benefits and costs, respect, bias, and infringement were added to the model, only the outcome manipulation and the measures of societal benefits and infringement made a unique contribution to the model fit, with societal benefits having the greatest influence. In block 4, the

² Two additional data analytic strategies were employed in both Study 1 and Study 2 to address the possible concern about the interpretability of these regression models with modest N's and a sizeable set of predictors. First, the regressions were conducted without the manipulated variables in the model. Secondly, a single regression was conducted with the combined data sets for Studies 1 and 2. Neither analysis results in an interpretation that differs from those presented in the text.

Table 1 Descriptive statistics for composite measures, Studies 1 & 2

Variable	Items	Study 1		Study 2		
		α	M^a	α	M	SD
Respect	In this case, the police behaved politely and respectfully	.95	5.2	.88	4.4	2.2
	In this case, the police were clearly identified					
	In this case, the defendant was allowed to explain					
Bias	In the typical VSA, defendants are allowed to explain					
	In the typical VSA, police are clearly identified					
	In the typical VSA, police are polite and respectful					
	Typically VSA is administered in non-biased fashion	.48	3.1	.85	2.8	1.2
	In this case, VSA administered in non-biased fashion (1) ^b					
	Those who administer VSA are likely to be honest (2)					
	Those who administer VSA are likely to be trustworthy (2)					
	VSA is likely to be administered consistently over time (2)					
	VSA is likely to stop airline hijackings	.84	4.0	.94	6.0	1.9
	In general, VSA outcomes beneficial to public					
Societal benefits	In this case, VSA benefits outweigh infringements					
	In general, VSA benefits outweigh infringements					
	In this case, VSA outcomes beneficial to public (1)					
	VSA will reveal truth of passenger answers (2)					
	VSA will be accurate in its predictions (2)					
	VSA more effective than other available technology (2)					
	VSA will accomplish goals with fewest confrontations (2)					
	VSA outcomes readily used in court (2)					
	VSA will minimize invasion on target passenger privacy (2)					
	Under same circumstances VSA will reach same result (2)					
Societal costs	VSA would be an accurate procedure (2)					
	VSA officials will provide accounts for detentions (2)	.71	5.1	.68	4.9	1.8
	VSA will produce long lines and waiting times at airports					
	VSA will be excessively expensive to operate					

Table 1 Continued

Variable	Items	Study 1		Study 2	
		α	M^a	α	M
Infringement	In this case, VSA infringes passenger's freedom	.83	5.8	.64	6.2
	In general, VSA infringes individual freedom		2.5		2.3
	In this case, the outcomes of VSA were fair ones	.57	5.0	.85	4.0
Outcome fairness	In general, the outcomes of VSA would be fair ones				
	VSA produces just outcomes (2)				
Procedural fairness	In this case, VSA was a fair procedure	.73	4.5	.87	4.0
	In general, VSA would be a fair procedure				
	VSA would be a just procedure for identifying potential hijackers (2)		2.3		2.5

^aWhen necessary variables were rescaled so that for all variables, 1 = respectful, unbiased, high benefits, low infringement, and low cost.

^bNumbers in parentheses identify an item as unique to either Study 1 or Study 2.

Table 2 Means for main effects of manipulated variables in Study 1 and Study 2^{a,b}

Dependent variable	Study 1			Study 2					ES(d)	df
	Procedure		Outcome	Procedure		Outcome		Credit cards		
	High respect	Low respect		Fair	Unfair	Gun	Gun			
Respect (9 = disrespectful)	3.18	7.31			2.91	5.80			1.81***	1, 71
Bias (9 = biased)	2.39	3.75			3.76	4.43			.37*	1, 71
Societal benefits (9 = few benefits)			3.22	4.82			5.42	6.80	.80***	1, 71

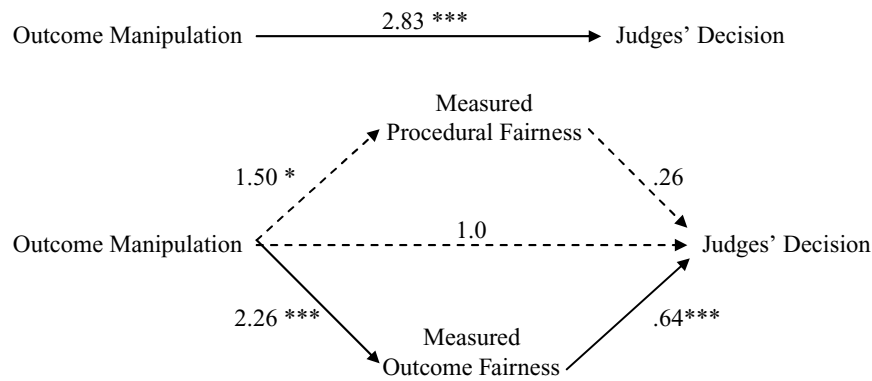
^aAll main effects with $p < .10$ are shown.

^bOne significant ($p < .05$) procedure \times outcome interaction was obtained on the measure of societal costs in Study 1, no significant interactions were obtained in Study 2. No effects were obtained in either study on the measures of societal costs or infringement.
*** $p < .001$.

Table 3 Hierarchical regression model and usefulness tests for prediction of judges' decision, procedural fairness, and outcome fairness (Study 1)

Predictor	DV: Judge's decision			DV: Procedural fairness			DV: Outcome fairness		
	Beta	<i>f</i> ²	<i>df</i>	Beta	<i>f</i> ²	<i>df</i>	Beta	<i>f</i> ²	<i>df</i>
Procedure manipulation	.06			-.01			.02		
Outcome manipulation (Block 1, R ² change)	.45 (.21***)	4.05***	64	.23 (.05*)	1.93*	67	.46 (.21***)	4.27***	67
Procedure manipulation	.12			.08			.06		
Outcome manipulation	.51	3.14**	63	.33	1.94	66	.50	3.23***	66
Proc × Outcome (Block 2, R ² change)	-.10 (.00)			-.17 (.01)			-.06 (.01)		
Procedure manipulation	-.21			-.17			-.06		
Outcome manipulation	.28	2.01*	58	-.02			.13		
Proc × Outcome	.04			-.00			.10		
Societal benefits	.38	3.46**	58	.62	5.96***	61	.72	9.07***	61
Societal costs	.11			.10			.05		
Respect	.31	1.82	58	.19			.09		
Bias	.09			.16			.08		
Infringe	.19	2.01*	58	.04			.09		
(Block 3, R ² change)	(.36***)			(.52***)			(.52***)		
Procedure manipulation	-.17			-.12			.00		
Outcome manipulation	.22			-.10			.13		
Proc × Outcome	.11			-.07			.10		
Societal benefits	.02			.15			.48	5.54***	60
Societal costs	.08			.07			.01		
Respect	.24			.13			.02		
Bias	.03			-.02			.02		
Infringe	.15	1.71	56	.11			.07		
Procedural fairness	.15						.38		
Outcome fairness	.39	2.09*	56	.66	4.51***	60	.451***	4.51***	60
(Block 4, R ² change)	(.07***)	1.71		(.11***)			(.11***)		

^aAll *t*'s for which *p* < .10 are shown.
* *p* < .05; ** *p* < .01; *** *p* < .001.



Unstandardized coefficients; * $p < .10$; ** $p < .05$; *** $p < .01$

Fig. 1 Test of fairness mediated outcome model (Study 1)

measured procedural and outcome fairness variables were added, and together they significantly improved the explanatory power of the model. However, only outcome fairness made a significant contribution.

In order to test whether the effect of the outcome manipulation on the judges' decisions was mediated by fairness as predicted by the fairness-mediated outcome model, we used a procedure for estimating the indirect effects in multiple mediation models (Preacher & Hayes, 2004, 2006). We tested the indirect effect of the manipulated outcome variable on the judges' decision through the measured variables of procedural fairness and outcome fairness. For interpretive clarity, the procedure manipulation and the outcome \times procedure interaction were included in this model as control variables. The results of this test are summarized in Fig. 1. This test shows that the total indirect effect of the outcome manipulation through both mediators is significant ($p < .05$), and that the direct effect of the manipulated outcome variable is non-significant ($p > .10$) once the mediators are included. Additional tests of the mediational role of each of the measured variables of procedural fairness and outcome fairness revealed that only outcome fairness significantly mediated the manipulated outcome-judge decision relationship ($p < .05$).

In order to better understand the nature of the judges' view of fairness in this context, two additional hierarchical regression analyses were conducted, one each using measures of outcome fairness and procedural fairness as dependent variables. The results of these analyses are summarized in columns 2 and 3 of Table 3. In both analyses, the manipulated variables were entered in block 1, followed by their interaction in block 2, the composite measures (societal benefits, societal costs, respect, bias, infringement) in block 3, and either the measure of fair outcome or fair procedure in block 4. The results of both analyses are similar in that, for both procedural fairness and outcome fairness, only the outcome manipulation significantly influenced the fairness judgment in block 1 and only the measure of societal benefits uniquely added to the fit of the model in block 3. Finally, in both equations, the addition of the other fairness judgment (fair outcome or fair procedure, whichever is not the dependent measure) significantly improved the predictive utility of the model. The notable difference in these two equations is that, whereas the effect of societal benefits on procedural fairness becomes non-significant once outcome fairness is added to the equation, this is not the case for the prediction of outcome fairness (societal benefits continues to make a unique contribution to outcome fairness, beyond

the contribution of procedural fairness). In fact, the societal benefits variable is a better predictor of outcome fairness than is procedural fairness.

Discussion

These results are clearly supportive of the fairness mediated outcome model. Of the manipulated variables of procedure and outcome, only the outcome variable was associated with the judges' decision. However, once the measured fairness variables were entered in the equation, they fully mediated the effect of the outcome manipulation, an effect that is attributable to outcome fairness, not procedural fairness. The direct outcome model is not supported, as there was no direct effect of the manipulated or measured outcome concerns once the fairness variables were entered in the model. The procedural fairness model receives virtually no support, as neither the procedure manipulation nor the measured variables of respect and bias added significantly to the explanation of the judges' procedural evaluations.

While these findings support the hypothesis that the judges' procedural evaluations are mediated by their fairness judgments, it appears that these appellate judges evaluated procedures and thought about fairness in a different way than has typically been reported in the justice literature. It is noteworthy that the only variables that uniquely influenced these judges' decisions were the outcome manipulation, the measure of the societal benefits of VSA, and the measure of infringement on the airline passenger's freedom. Of these, the two outcome variables had the greatest influence. Furthermore, our examination of the meaning of outcome fairness to these judges revealed that their fairness judgments were heavily influenced by their assessments of the societal benefits of the VSA procedure. It is especially noteworthy that neither the procedure manipulation (which had an extremely large effect on the judges' reports of how respectfully the airline passenger was treated), nor the judges' perception of respectful treatment or bias added significantly to the judges' impressions of fair procedures or fair outcomes. In sum, while these findings are supportive of a fairness mediated model, they suggest that the judges' procedural evaluations were more heavily influenced by outcome fairness than procedural fairness, and that both their procedural fairness and outcome fairness judgments were largely determined by outcome concerns such as the utilitarian balancing concerns described by the Supreme Court Justices themselves, rather than by such variables as respect and neutrality suggested by Tyler and Lind's (1992) relational theory.

Study 2 was conducted for several reasons. First, the finding that outcome concerns dominated the judges' procedural evaluations and their notions of procedural and distributive fairness is at variance with a substantial body of procedural justice research. Hence, an additional test to establish the reliability of these findings is warranted. Second, it is particularly surprising that neither the procedure manipulation (confounding respectful treatment and voice) nor the general measure of the judges' perceptions of respectful treatment had a significant effect on the judges' perception that the VSA procedure was a fair one. In Study 2 we surveyed judges more extensively about their perceptions of the search procedure in order to see if other procedural variables might be important to their sense of fair treatment. Finally, because the sample size was modest in Study 1, a replication is desirable to establish the reliability of these findings.

Study 2

Study 2 was similar to Study 1 in all respects with two exceptions. First, the population sampled in Study 2 was state trial court judges rather than appellate judges. This change was made primarily because the relatively small population of appellate judges limited the possibility of

drawing a second sample. Our confidence in the generality of the model would be enhanced if similar results were obtained in Study 2 despite this change in the population. The second change was in the manipulation of the outcome in the scenario. Rather than finding one joint of marijuana in the low benefit condition as in Study 1, the low benefit outcome in Study 2 was the discovery of several stolen credit cards. This change was introduced in order to test the generalizability of our findings across fact patterns.

Method

A brief case description (approximately 1,800 words) and a 77-item questionnaire were sent to 398 state trial court judges throughout the United States. The stimulus materials employed in this study were identical to those in Study 1 with the exception of the low benefit outcome noted above, and a lengthier questionnaire in this study, in order for a more thorough investigation of the meaning of procedural fairness.

Measures

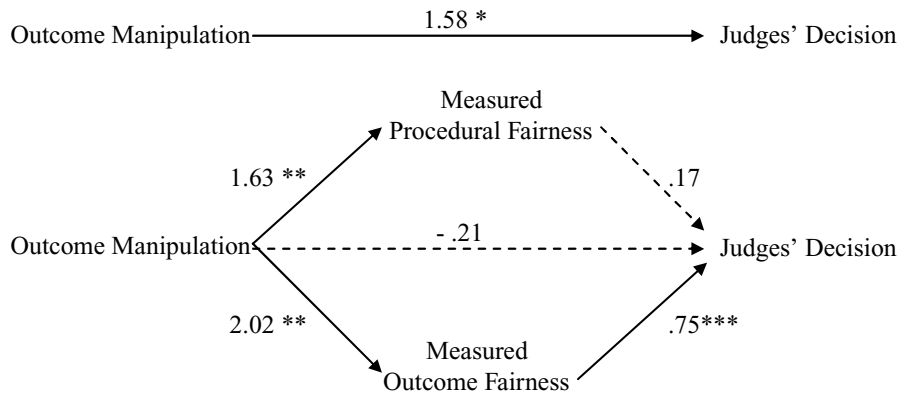
The items employed for the composite measures and the reliability, mean, and standard deviation for each of these composite are shown in Table 1. As in Study 1, the construction of these composite measures was guided by the results of a principal components analysis with varimax rotation on components with eigenvalues greater than 1.0. The composite measures are very similar to those employed in Study 1, including measures of respect, bias, societal costs, societal benefits, infringement, fair procedure, and fair outcome. The most noticeable difference is in the composite of societal benefits, which contains multiple new items that were not employed in Study 1. The other composite to change somewhat is bias, which includes several items concerning the trustworthiness of the authorities who would administer the VSA. These trustworthiness items are suggested by Tyler and Lind's (1992) relational theory as one of three components of procedural fairness. The composite measures employed in this study now include items reflecting each of the three relational concerns of trustworthiness, neutrality, and standing.

Results

Completed questionnaires were received from 75 judges, for a response rate of 19%. The response rate was not significantly different across the experimental conditions, $\chi^2(1, N = 75) = .35$, $p > .10$.

Analysis of variance was employed to examine the effects of the procedure and outcome manipulations on the measures of respect, bias, societal benefits, societal costs, and infringement. The results of these analyses are summarized in Table 2. As in Study 1, the procedure manipulation had a substantial ($d = 1.81$) and significant effect on the judges' report of how respectfully the passenger was treated, and a smaller ($d = .37$), marginally significant effect on their perception of the amount of bias in the passenger's treatment. Also, the outcome manipulation (finding a gun versus finding stolen credit cards) had the expected effect on the judges' report of the benefits resulting from the application of VSA. As in Study 1, the magnitude of the outcome manipulation effect ($d = .80$) was considerably smaller than the magnitude of the procedure manipulation effect. There were no other significant main effects or procedure by outcome interactions on these dependent measures.

Hierarchical regression analyses were employed to test the three competing models of judicial decision making. The dependent measure was the continuous measure of the judges' decisions favoring the defendant or the state, and the same predictor variables were entered in the same



Unstandardized coefficients; * $p < .10$; ** $p < .05$; *** $p < .01$

Fig. 2 Test of fairness mediated outcome model (Study 2)

steps as described in Study 1 (As in Study 1, we also asked the judges to indicate their ruling on a dichotomous scale. The two measures were again strongly related: point-biserial $r = .83$). A summary of these regression analyses is reported in Table 4, where it can be seen that the findings are similar to those reported in Study 1. Again, of the two manipulated variables only the outcome manipulation had a significant effect on the judges' decisions in block 1. In block 3, when the composite measures were entered into the regression equation, only the measured variables of societal benefits and infringement had a significant effect on the judges' decision, with the variable of societal benefits having a substantially greater effect. Finally, in block 4, the measured variables of fair procedure and fair outcome were entered. Although the contribution of the two variables jointly was significant, neither variable uniquely was significant in this last step of the equation.

In order to test whether the effect of the outcome manipulation on the judges' decisions was mediated by fairness as predicted by the fairness-mediated outcome model, we used the procedure for estimating the indirect effects in multiple mediation models (Preacher & Hayes, 2004, 2006). We tested the indirect effect of the manipulated outcome variable on the judges' decision through the measured variables of procedural fairness and outcome fairness. For interpretive clarity, the procedure manipulation and the outcome \times procedure interaction were included in this model as control variables. The results of this test are summarized in Fig. 2. This test revealed that the total indirect effect through both mediators is significant ($p < .05$), and that the direct effect of the manipulated outcome variable is non-significant ($p > .10$) once the mediators are included. Tests of the indirect effect of the outcome manipulation on the judges' decision through each of the two measured fairness mediators revealed that only outcome fairness significantly mediated the manipulated outcome-judge decision relationship ($p < .05$).

Some observations about the model with procedural fairness as the dependent variable are noteworthy. First, the full model is very similar to the model that resulted from the Study 1 data in that the judges' assessments of the fairness of the VSA procedure were directly affected only by the benefits of VSA and the fairness of the outcomes resulting from VSA. Also as in Study 1, there was no direct effect of respectful treatment on the judges' perceptions of the fairness of the VSA procedure.

Table 4 Hierarchical regression model and usefulness tests for prediction of judges = decision, procedural fairness, and outcome fairness (Study 2)

Predictor	DV: Judge's decision		DV: Procedural fairness		DV: Outcome fairness	
	Beta	<i>f</i> ²	Beta	<i>f</i> ²	Beta	<i>f</i> ²
Procedure manipulation	.08		.08		.05	
Outcome manipulation (Block 1, R ² change)	.33 (.11*)	2.92**	.30 (.09*)	2.64*	.38 (.14***)	3.45***
Procedure manipulation	.03		.11		.09	
Outcome manipulation	.28	1.74	.33	2.00*	.42	2.63***
Proc × Outcome	.07		-.05		-.07	
(Block 2, R ² change)	(.00)		(.00)		(.00)	
Procedure manipulation	.03		-.02		-.01	
Outcome manipulation	-.00		.03		.12	
Proc × Outcome	.06		-.09		-.10	
societal benefits	.73	7.23***	.87	12.22***	.83	11.56***
societal costs	-.02		.04		-.01	
Respect	-.15		.12		.01	
Bias	.02		-.03		.08	
Infringe	.20	2.48*	.02		.09	
(Block 3, R ² change)	(.54***)		(.73***)		(.69***)	
Procedure manipulation	.04		-.01		.00	
Outcome manipulation	-.05		-.05		.10	
Proc × Outcome	.11		-.02		-.03	
Societal benefits	.28		.29	3.25***	.20	2.25*
Societal costs	-.02		.05		-.04	
Respect	-.18		.11		-.07	
Bias	.00		-.08		.09	
Infringe	.16	2.08*	-.04		.07	
Procedural fairness	.15		.71	8.14***	.71	8.14***
Outcome fairness	.39					
(Block 4, R ² change)	(.05*)		(.09***)		(.09***)	

^aAll *t*'s for which *p* < .10 are shown.
p* < .05; *p* < .01; ****p* < .001.

Discussion

As in Study 1, these results are clearly supportive of the fairness mediated outcome model, rather than either the direct outcome model or the procedural fairness model. As predicted by the fairness mediated outcome model, of the manipulated variables of procedure and outcome, only the outcome variable affected the judges' decision, and its effect on the judges' decision is mediated by the measure of outcome fairness. Furthermore, as in Study 1, once the measured fairness variables were entered in the equation, they fully mediated the effect of the outcome manipulation, thus the direct outcome model is not supported. The procedural fairness model receives virtually no support, as neither the procedure manipulation, nor the measured variables of respect or bias added significantly to the prediction of the judges' procedural evaluations. Overall, the findings of this study lend further support to the claim that these judges take a considerably different approach to procedural evaluations than that of the respondents in the vast majority of justice studies (studies which have typically shown procedural evaluations to be influenced more by procedural fairness judgments than by outcome fairness judgments).

Furthermore, this study, like Study 1, suggests that these judges employed a different definition of fair treatment than that of the respondents in the vast majority of justice studies (studies which have typically shown procedural fairness judgments to be influenced more by such procedural concerns as respectful treatment, unbiased treatment, trustworthy authorities, and voice than by such instrumental concerns as costs and benefits). Evidently the judges in Studies 1 and 2 employed a different definition of fair treatment than the one suggested by the group value and interactional justice theories. In this regard, it is also noteworthy that the bias variable, which included items tapping the other two components of fair treatment specified by the group value model (unbiased and trustworthy authorities), was also not directly related to the judges' definition of fair treatment. Overall, these judges do not appear very concerned with relational factors in their procedural fairness assessments. Since the procedure manipulation incorporated the defendant's opportunity for voice, and since the composite variable of respect included an item reflecting this procedural criterion, it appears that judges were also not defining fair treatment according to the concerns specified by Thibaut and Walker's (1975) procedural fairness theory. Rather, their perception of fair treatment, at least in the application of this legal procedure, seems primarily concerned with the outcomes of VSA.

Although these findings are consistent with our interpretation of several studies of authority decision making considered above, there are some limitations of these studies that suggest caution in our interpretation of these data. First, the *N*'s in both Studies 1 and 2 were modest (Study 1, *N* = 70, *df* for predicting the judges' decision = 56; Study 2, *N* = 75, *df* for regression equation predicting the judges' decision = 64), suggesting caution in interpreting the results of regression equations with multiple predictor variables. Second, and most importantly, while both of these studies of authorities are suggestive of an important authority-subordinate distinction in the meaning and importance of fairness for procedural evaluations, these studies did not actually manipulate role. These limitations are addressed by Studies 3 and 4.

It should be emphasized that, although our analyses of the tradeoffs between procedural and distributive fairness were ones that relied on correlated measures, both Study 1 and Study 2 were experiments that manipulated the procedural and outcome variables of interest. Thus, the evidence in the first two blocks of the hierarchical regression analyses (Tables 3 and 4) is based on experimental, orthogonal manipulations. The analyses in both studies examined the effect of these manipulated variables on the dependent measures of the judge's decision, procedural fairness, and distributive fairness, and in each instance only the outcome manipulation had a significant effect.

One additional consideration is in order. While one might suspect that the outcome dominance in Studies 1 and 2 is a product of the magnitude of the outcomes at stake rather than a product of the authority role of our respondents, we think several considerations weigh against this interpretation. First these data were collected prior to September 11, 2001, at a time when a potential airline hijacking was very likely a considerably less vivid and emotionally charged prospect. The ANOVA results in both studies are consistent with this view—recall that the effect of the procedure manipulation on the measure of respect is more than three times the magnitude of the effect of the outcome manipulation on the measure of societal benefits in Study 1, and more than twice the size in Study 2. Furthermore, previous studies have shown that procedural concerns continue to weigh heavily in subordinate satisfaction and procedural fairness judgments even when outcomes of considerable magnitude are at stake. For example, Casper, Tyler and Fisher's (1988) survey of convicted felons (half of whom were incarcerated with a median prison term of 3 years) revealed that, while the sentence received had a considerable impact on satisfaction and fairness ratings, the respondents' report that they were treated fairly had a greater impact on their overall fairness ratings than either their report that they received a fair outcome or the actual length of their sentence—a pattern that held up even when the analyses were limited to the half who were incarcerated. Of course, an experimental manipulation of role is the best test of whether the outcome dominance observed in these studies is truly a product of a one's role. Therefore, Studies 3 and 4 are experiments that include role as a variable.

In Studies 3 and 4, authority and subordinate participants are asked to evaluate the propriety of a more or less respectful procedure designed to respond to a more or less serious group threat. In light of the findings of Studies 1 and 2, Studies 3 and 4 test the hypothesis that role (authority versus subordinate) will interact with outcomes and with procedural fairness such that: (a) outcome concerns will exert a greater effect on the procedural evaluations of authorities than subordinates and (b) procedural fairness will exert a greater effect on the procedural evaluations of participants who assume the subordinate's perspective than on those who assume the authority's perspective.

Study 3

Study 3 retained the outcome and procedure manipulations present in the previous studies while adding a manipulation of perspective (authority versus subordinate). Undergraduate participants read a vignette describing an encounter between an authority and a subordinate, in which the authority conducted a search in a respectful (or disrespectful) way, resulting in an outcome of high (or low) societal benefit. In the vignette, the authority, a student Resident Assistant (RA) in campus housing, searched a student's room following a tip that the student was violating campus housing regulations. Upon discovering a violation, the RA reported the student, who was then sanctioned by the university. The vignette described the student's appeal of the sanction, based upon her claim that the RA behaved inappropriately during the search. The evidence in this case was presented in the form of statements from the student and the RA describing the encounter. After reading the evidence, participants answered a series of questions, including ones about the fairness of the search procedure and outcome, the benefits of the outcome to the local (student housing) community, and their preferred ruling in this case.

Participants read a description of the appeal process indicating that appeals are heard by a board comprised of student residents, RA's, and a campus administrator. In order to test our hypotheses about perspective, several variants of the subordinate perspective were employed in

this study—each is contrasted with the perspective of an RA member of the appellate board. All RA perspective participants were instructed to do their best to imagine the particular insights and the perspectives that an RA representative might bring to this board in such a case (approximately 90% of the students on this campus live in campus housing, so they are very familiar with the roles of RA and student resident) and they answered several questions designed to assist them in adopting this perspective.

The first subordinate perspective involved a student member of the board who was considering the student's appeal of the imposed sanctions. Participants assigned to this perspective read that they were to act as the student representative to the appellate board, and to imagine the particular insights and perspectives that a (non-RA) student representative might bring to this board in such a case. In addition, they (and all participants in the subordinate perspective) answered several questions designed to assist them in adopting the perspective of a student resident of campus housing. This first subordinate perspective condition reflects our expectation that differences between decision makers and subordinates do not reflect a difference in role per se, but rather in the perspective that would normally accompany one's role in a dispute. If so, it seems sensible to attempt to avoid confounding role and perspective. Based on our findings in Studies 1 and 2, we expect that a decision maker who adopts a student's (subordinate) perspective while evaluating an authority-subordinate encounter will be more influenced by procedural concerns and less influenced by outcome concerns than a decision maker who adopts the more typical authority perspective.

The second subordinate condition placed the participant in the perspective of the student who was appealing this case. These participants were told to imagine that they wrote the student's statement to the appeals board that they were about to read. The prediction is that the student appellant will demonstrate a greater concern with procedures and a lesser concern with outcomes than does the RA decision maker. If the results are similar for the student representative and for the student appellant, this would support our expectation that it is perspective, rather than role per se which is guiding the concern with procedure versus outcome.

Finally a third, more exploratory subordinate perspective was included in which the participant was instructed to read the materials from the perspective of a student resident of campus housing who is learning the facts of the case from a report in the campus newspaper. Thus, they were assigned the perspective of an observer rather than a direct participant in this case. Since they were instructed to assume the perspective of a student, and a potential target of encounters with an RA authority, we expect that they will also demonstrate a greater concern for procedures and a lesser concern for outcomes than the RA decision maker. However, we would speculate that, by virtue of their observer status, and hence, the likelihood that they would adopt a perspective somewhere between that of either the authority or the subordinate, the effects of the observer versus RA perspective contrast will be less pronounced than for either of the other two subordinate perspectives.

Method

Participants

The participants in this study were 169 female and 16 male undergraduates, ages 17–37 ($M = 19.29$) who agreed to participate either to receive partial credit toward completion of an introductory psychology course, or who agreed to participate after class, or when approached by one of the experimenters in campus housing.

Design

The design of this study was a 4 (Perspective: Authority (RA) member of appellate board vs. student appellate board member vs. student who is appealing this case vs. student observer) \times 2 (procedure: respectful vs. disrespectful) \times 2 (outcome: high vs. low benefit) between-subjects randomized factorial, with a counterbalanced order of questions about the procedure, the outcome, and the participant's preferred decision in this case.

Procedure

Participants were asked to assume one of the four perspectives as they read this case, according to their randomly assigned experimental condition. The RA participants completed a brief induction procedure that asked several questions about what it would be like to be an RA of campus housing (e.g., "Describe two things that would be among the most attractive aspects of being an RA," "Describe two things that would be among the least attractive aspects of being a campus RA"). Participants in the student perspectives completed the same induction completed by RA's except they were to describe the most/least attractive aspects of being a student resident of campus housing.

All participants were asked to imagine that the Board was considering a student's appeal of her one-month suspension from campus housing imposed by the campus security director following a complaint filed by the RA, and all received identical transcripts (except for variation introduced by the experimental manipulations) of written statements submitted by the resident and the RA describing the encounter in question. The statements agreed that the RA had received a telephoned complaint about a loud party and drugs being sold outside the student's room, prompting a visit to the student's room from the RA. Depending on the procedure condition, the RA was described as having been either respectful during the visit (e.g., according to the student, "she was perfectly polite and everything . . . She asked me in a nice enough way if she could come in to settle this" and, according to the RA: "I tried to be as polite as possible . . . I asked her as respectfully as I could if I could come in and talk to her."), or disrespectful (e.g., according to the student, "I couldn't believe how rude she was. She was yelling and swearing at me, telling me that she was tired of this shit, and what a bitch I was" and, according to the RA: "I'm sure I could have been nicer . . . I said something about how I was sick of these complaints and I was here to tell her to knock this stuff off."). Similarly, depending on the outcome condition, both accounts agreed that, upon searching the student's room, the RA found either cocaine, "about a quarter of a gram . . . and a razorblade" (high benefit) or "several incense cubes, one of which was still burning" (low benefit). Both substances are violations of actual student housing regulations.

Participants then completed a 45-item questionnaire asking them to indicate their agreement on 9-point bipolar adjective scales about procedural fairness, outcome fairness, societal benefit, and their likely ruling in this case. After completing the questionnaires, participants were thanked for their participation and debriefed.

Measures

Composite measures were created as indicators of four key constructs: Respect (4 items, e.g., 9 = The RA treated me with respect; The RA treated me with dignity) $\alpha = .90$, $M = 4.8$, $SD = 2.31$; benefit (3 items, e.g., The RA's search uncovered a serious violation of housing regulations; The RA's search produced a benefit of considerable magnitude for campus residents)

$\alpha = .88$, $M = 5.1$, $SD = 2.48$.; fair and beneficial outcome³ (8 items, e.g., 9 = The RA's behavior in this instance produced an outcome that was beneficial to residents of campus housing; The RA's search uncovered a serious violation of housing regulations; The RA's seizure of a banned substance is fair; In this instance, the outcome of the RA's search was fair), $\alpha = .93$, $M = 5.64$, $SD = 1.78$; and fair procedure (3 items, e.g., 9 = The RA behaved fairly toward the student; The RA treated the student fairly in this encounter), $\alpha = .90$, $M = 4.92$, $SD = 2.42$. The dependent measure asked the participants how they would rule in this appeal's case: 1 = in favor of the student resident (dismiss all charges); 9 = in favor of the RA (uphold the sanctions), $M = 5.65$; $SD = 2.52$.

Results

Manipulation checks

A 4 (Perspective: Authority (RA) member of appellate board vs. student appellate board member vs. student who is appealing this case vs. student observer) \times 2 (procedure: respectful vs. disrespectful) \times 2 (outcome: high vs. low benefit) \times 2 (procedure questions first vs. outcome questions first) between-subjects ANOVA was conducted on the dependent variable of the respondent's preferred ruling in this case. Since there was no main effect of question order, this variable is excluded from subsequent analyses.

Two 4 (Perspective) \times 2 (procedure) \times 2 (outcome) ANOVA's were employed to examine the effect of the procedure and outcome manipulations. The ANOVA on the measure of respect revealed the intended effect of the procedure manipulation: respectful procedure, $M = 6.2$, disrespectful procedure, $M = 3.2$, $F(1, 167) = 149.2$, $p < .001$, $d = 1.90$. The ANOVA on the measure of benefit revealed the intended effect of the outcome manipulation: high benefit, $M = 6.2$, low benefit, $M = 4.1$, $F(1, 167) = 40.33$, $p < .001$, $d = .99$.

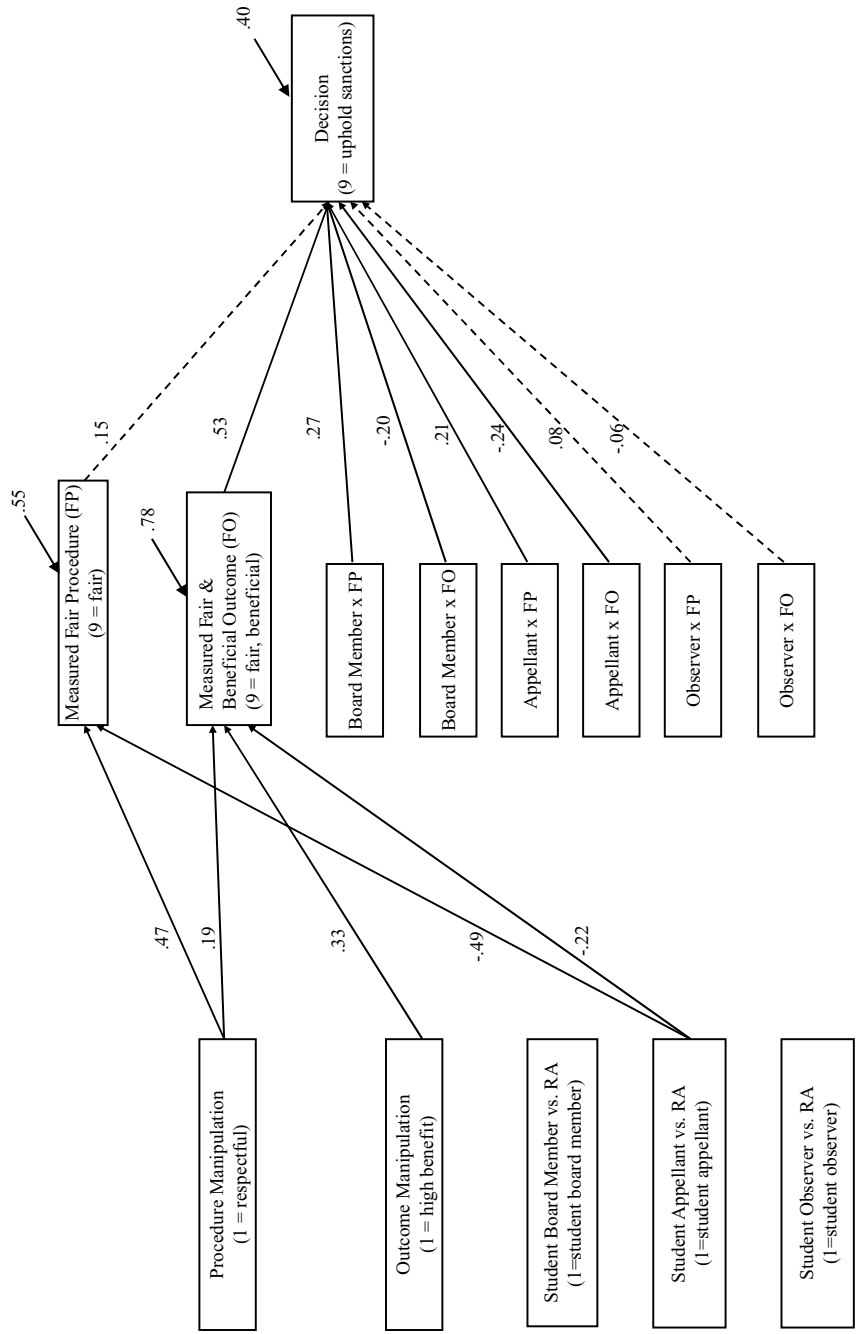
Hypothesis tests

Path analyses with residualized interaction terms (Cohen, 1978; Lance, 1988) were employed to test two hypotheses:

- H1: Outcome concerns will exert a greater effect on the reactions of participants who assume the authority's (RA's) perspective than on those who assume the subordinate's (student's) perspective on the housing board;
- H2: Procedural fairness will exert a greater effect on the reactions of participants who assume the subordinate's perspective than on those who assume the authority's perspective on the housing board.

In this path analysis (see Fig. 3) the independent variables were dummy coded. The manipulated variable of perspective is captured by 3 dummy variables contrasting the three student perspectives with the RA perspective (1 = student; 0 = RA) and the dichotomous manipulated

³ While in Studies 1 and 2 we treated outcome fairness and societal benefits as separate measures, we combined them into a single composite in the present study for two reasons. First, the correlations among the items and their high reliability as a set suggest the participants are treating them as a single construct. Second, the analyses to be employed in this study will involve several additional terms by virtue of our interest in interactions between the manipulated variable of role and the decision makers' concern with both the procedure and the outcome of the RA's search. Therefore, we prefer the single composite as a way to minimize the overlapping variance among the predictors.



All paths were tested. All significant standardized paths (β 's, $p < .05$, 2-tailed) are shown as solid lines

Fig. 3 Path model of authorities' and subordinates' appellate decision regarding the student housing case (Study 3)

variables of procedure and outcome were each captured with one dummy (0 = disrespectful procedure; low benefit outcome; 1 = respectful procedure; high benefit outcome). All direct paths were tested from the three manipulated variables in Column 1 and the 2-way interactions among them to the measured variables of fair procedure, fair and beneficial outcome and the final decision (because the block containing the perspective \times measured fair procedure and perspective \times measured fair and beneficial outcome interactions was not significant ($p > .05$), these interactions are not shown in the path diagram). Next, all paths were tested from the Column 2 variables of measured fair procedure, measured fair and beneficial outcome, and the 3 perspective \times fair procedure interactions and 3 perspective \times fair and beneficial outcome interactions.

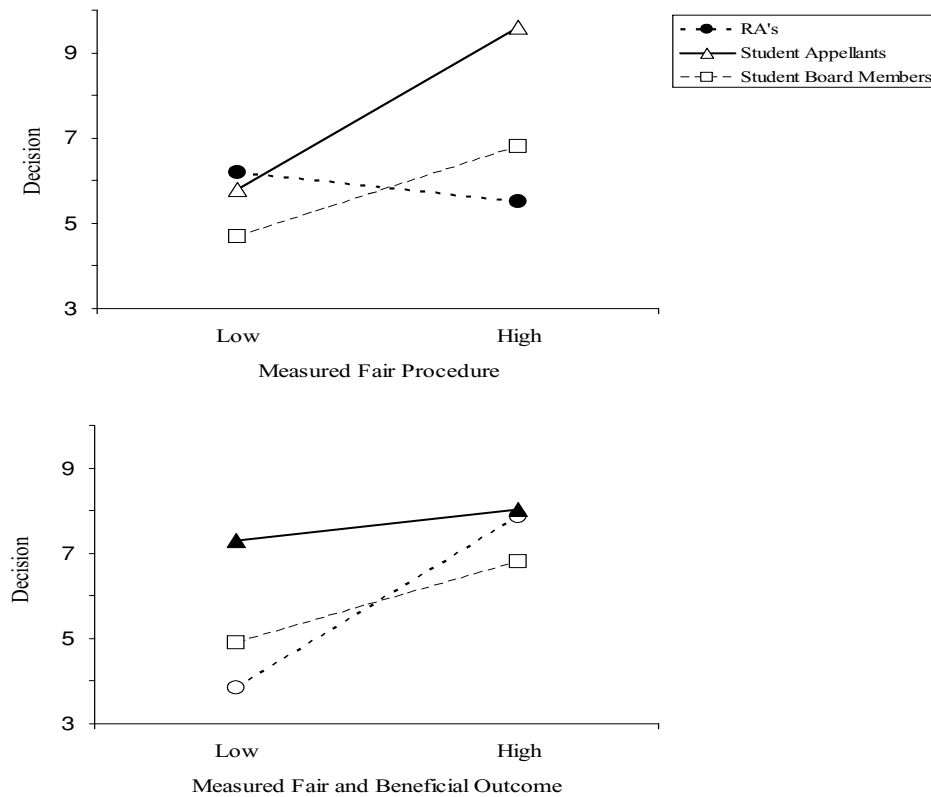
Several observations about the model shown in Fig. 3 are noteworthy. Column 1 of the model shows that the procedure manipulation had a positive effect on the measure of fair procedure, as well as a smaller positive effect on the measure of fair and beneficial outcome. The direct influence of procedure manipulations replicates a well-established relational influence on procedural justice (e.g., Tyler, 1994). Similarly, the positive effect of the procedure manipulation on the measure of fair and beneficial outcomes is consistent with previous demonstrations that fair procedures enhance perceptions of fair outcomes (e.g., Tyler, 1994). Column 1 of the model also shows that the outcome manipulation had a positive effect on participants' report that the outcome was fair and beneficial. This manipulation did not affect the measure of fair procedure.

Three tests of Hypothesis 1, that outcomes will exert a greater effect on the authorities' than on the subordinates' reactions, are present in Column 2 of this path analysis. This hypothesis is supported by two of the three critical contrasts. It is supported by the significant interaction between measured fair and beneficial outcome and Student Board Member perspective (*Board Member \times FO* in Fig. 3) and by the significant interaction between measured fair and beneficial outcome and the Student Appellant perspective (*Appellant \times FO* in Fig. 3) on the final decision. As can be seen in Fig. 3, both of these contrasts are negative, indicating that outcomes are exerting a greater effect on the authorities' than on the subordinates' final decision.

Three tests of Hypothesis 2, that procedural fairness will exert a greater effect on the subordinates' than on the authorities' reactions, are also present in Column 2 of the path analysis. This hypothesis is also supported by two of the three critical contrasts. As can be seen in Fig. 3, the interaction between measured fair procedure and Student Board member perspective (*Board Member \times FP* in Fig. 3), and the interaction between measured fair procedure and Student Appellant perspective (*Appellant \times FP* in Fig. 3) are positive, indicating that fair procedure is exerting a greater effect on the subordinates' than on the authorities' final decision.

Although the paths from the Student Observer Perspective interactions with measured fair procedure and measured fair and beneficial outcome are in the predicted direction (indicating that procedural fairness mattered more, and that outcomes mattered less for the decision preference of the student observers than for the RA's), both of these interactions are non-significant.

The simple effects tests of these significant interactions (Jaccard & Turrisi, 2003) are shown in Fig. 4 (note that hollow anchors in Fig. 4 indicate significant slopes). The top half of Fig. 4 shows that the effect of measured fair procedure (centered) on the participants' decisions is greatest for the student appellants ($B = .78, p < .01$), and is moderately positive for the student appellate board members ($B = .48, p < .01$), but is non-significant for participants in the RA perspective ($B = -.14, p > .10$). The bottom half of Fig. 4 shows that the effect of measured fair and beneficial outcome on the participants' decisions is greatest for the RAs ($B = .96, p < .001$), and is moderate and positive for the student appellate board members ($B = .45, p < .01$), but that the measured fair and beneficial outcome effect is non-significant among the student appellants ($B = .17, p > .10$).



Note. Hollow anchors indicate significant ($p < .05$) slopes.

Fig. 4 Simple effects tests of procedural fairness and outcomes for procedural evaluations of authority (RA) and subordinate (student appellant; student board member) role participants (Study 3)

One additional comparison is informative. Our hypotheses focused on the between-groups comparison of outcomes and procedures among participants with a subordinate versus participants with an authority perspective. However, it is equally important to know whether, among authorities, outcomes matter more than procedures, and whether, among subordinates, procedures matter more than outcomes. These questions are answered by a test for the difference between the partial correlation of fair procedure with the decision and the partial correlation of fair outcomes with the decision among RA's, student appellants, and student board members—the 3 perspectives involved in the perspective \times procedure and perspective \times outcome interactions (Meng, Rosenthal, & Rubin, 1992). These tests reveal that the authorities do exhibit greater concern with outcomes than with procedural fairness, while the opposite is true among the student appellants. Among the RA's the relationship between outcomes and the decision (partial $r = .38$) is significantly stronger than the one between procedural fairness and the decision (partial $r = -.06$, $z_{\text{difference}} = 4.02$, $p < .001$). Among the student appellants, the relationship between procedural fairness and the decision (partial $r = .23$) is significantly greater than the relationship between outcomes and the decision (partial $r = .07$, $z_{\text{difference}} = 2.07$, $p < .05$). Finally, among the student board members, the partial correlation of procedural fairness with

the decision (partial $r = .24$) was not significantly different than the correlation of outcomes and the decision ($r = .22$, $z_{\text{difference}} = .24$, $p > .10$).

Discussion

Study 3, consistent with Studies 1 and 2, reveals that outcomes matter more for authority reactions, while procedures matter more for subordinate reactions. In this study, this pattern was exhibited by perspective \times procedural fairness interactions and perspective \times outcome interactions on the participants' final decisions. Furthermore, in addition to the interaction effects showing that procedures mattered more among subordinates than among authorities, and outcomes mattered less among subordinates than among authorities, simple effects tests reveal that the effect of procedural fairness on the final decision was non-significant among the authorities. This is also consistent with our findings in Studies 1 and 2. These findings are based upon experimentally assigned perspectives which were absent in Studies 1 and 2. The consistency of this finding across two different operationalizations of the subordinate perspective enhances our confidence that this perspective distinction deserves greater attention in both the basic and applied research on the role of procedural fairness in disputes involving authorities and subordinates.

Although the judges in Studies 1 and 2 based their procedural fairness evaluations on societal benefits rather than respectful treatment, we did not obtain perspective \times outcome or perspective \times procedure interactions on the dependent measure of procedural fairness in this study. In light of the theoretical significance of the absence of an effect of respect on procedural fairness among the judges in Studies 1 and 2, this finding merits another test, and it will be examined in Study 4. One interpretation of the absence of the outcome dominance on procedural fairness among authorities in Study 3 that was observed among the judges in Studies 1 and 2 is that the outcome dominance in Studies 1 and 2 reflects the effects of a bigger outcome at stake in those studies (an airline hijacking) than in Study 3 (drug dealing in student housing). We think an additional consideration weighs against this interpretation. The effect size of the respect and outcome manipulations in Study 3 are comparable to those in Studies 1 and 2: outcome manipulation effect size, Studies 1–3, $d = .85$, $.80$, and $.99$, and respect manipulation effect size, Studies 1–3, $d = 2.90$, 1.81 , and 1.90 . It appears that to the students living where the offense took place in Study 3, the outcomes posed a threat comparable in magnitude to the one the judges perceived from a gun being confiscated from an airline passenger in a pre-“9–11” era. In order to further investigate the nature of this effect, Study 4 employs a non-student population, it surveys actual authorities, and it poses a different type of threat—one that we again expect to be perceived as quite serious.

Study 4

Study 4 surveyed managers and employees of New York City restaurants about their reactions to a sanitation procedure proposed to curb the threat of a Hepatitis outbreak in NYC restaurants. Information about the threat was presented in a fictitious newspaper article describing an incident in which a restaurant patron was infected with Hepatitis A. The news article varied according to the description of the magnitude of the threat to other NYC restaurants and the respectfulness and dignity of the procedural intervention being proposed by a regulatory agency.

Study 4 permits some extensions of our investigation. The participants in Studies 1–3 evaluated a procedure that was directed toward someone who had violated a law (Studies 1 & 2) or committed a regulatory infraction (Study 3). It is thus possible that the decision makers in these studies have shown less concern with relational criteria because they think the target of the

procedure no longer deserves procedural fairness (Heuer, Blumenthal, Douglas, & Weinblatt, 1999; Sunshine & Heuer, 2002). In Study 4 restaurant workers evaluate a procedure proposed to respond to a health threat that could adversely impact their restaurant. As in Studies 1–3, the procedure manipulation in this study is one intended to capture the construct of standing. However, to explore the generalizability of the moderation effect across different operationalizations of this construct, the procedure manipulation varies the dignity and respect for the restaurant employees' rights (Tyler, 1989, 1994). As in the previous studies this intervention procedure is proposed to deal with a threat of varying magnitude. However, rather than retrospectively evaluating a procedure that has already been directed toward an individual who behaved improperly, participants in Study 4 evaluated a procedure that has been proposed but has not been applied; a procedure that would be directed at individuals who most likely have not conducted themselves improperly.

The shift to a prospective evaluation permits an additional test of the nature of the outcome concerns that we have found to be important to authorities. In Studies 1–3 the procedure under consideration was always effectively applied (it always resulted in a “hit,” with the attendant societal benefits). In Study 4, because the procedure has not yet been employed, the magnitude of the impending threat and the efficacy of the procedural intervention are more easily distinguished as separate concerns. Our stimulus materials explicitly manipulate the magnitude of the threat to the restaurant's welfare, but we anticipate natural variability in the participant's expectations regarding the efficacy of the procedural intervention at reducing the threat. While our prior findings point to a greater concern with outcomes among authorities, we are not aware of any theoretical justification for predicting whether authorities will be more concerned with the magnitude of the threat or with the anticipated efficacy of the procedural intervention to reduce it. Therefore, in addition to manipulating the magnitude of threat, we will also measure efficacy in order to examine its role as a form of outcome concern. Our hypotheses about the moderation of outcome concerns are therefore stated generally—that role might moderate either the manipulated variable of threat or the measured variable of efficacy, or both.

Study 4 manipulates respect (or standing), and includes a general relational concerns measure that taps the procedural criteria of trust, neutrality, and standing. This measure has been employed in numerous other studies of this construct (Huo, Smith, Tyler, & Lind, 1996; Stahl, Van Prooijen, & Vermunt, 2004; Tyler, Degoe, & Smith, 1996; Tyler, Lind, & Huo, 2000). Our predictions for the moderation of relational concerns on procedural fairness are that role (authority versus subordinate) will moderate the influence of either the manipulated variable of respect, or the more general construct of relational concerns.

The following hypotheses are tested in this study:

- H1: Outcome concerns (either the manipulated variable of threat or the perceived efficacy of the intervention, or both) will exert a greater effect on the reactions of the authorities (restaurant managers) than the subordinates (restaurant employees).
- H2: Procedural concerns (the manipulated variable of respect or the measured variable of relational treatment concerns, or both) will exert a greater effect on the reactions of the subordinates than the authorities.

Method

Participants

The participants in this study were 98 restaurant workers, 50 of whom were managers and 48 of whom were restaurant employees. The participants included 55 males and 41 females

(2 respondents did not answer the question about gender) ranging in age from 18–59 ($M = 30.9$, $SD = 9.4$). Sixty-eight of the participants reported their ethnic background as white, 14 Hispanic, 6 black, 2 Asian, and 6 “other” (2 respondents did not answer the question about ethnicity).

Design

The design of this study was a 2 (Role: owner/manager vs. employee) \times 2 (outcome threat: high vs. low) \times 2 (procedure: respect high vs. low) between-subjects factorial, with outcome threat and procedure completely randomized, and role nested within restaurant.

Procedure

Experimenters entered restaurants in various neighborhoods in New York City and presented a letter of introduction to the manager. The letter explained that we were studying the way employers and employees respond to challenges in the workplace, and it indicated that participation would require that an owner or manager and an employee read a short news story about an issue concerning the restaurant business, and then answer a series of questions. Participants were offered \$10 for their completed survey.

The news story, described as one from a local newspaper, reported a recent outbreak of Hepatitis A in a NYC restaurant. The contents of the article varied according to the experimental condition. In the high outcome threat condition, the article indicated that Hepatitis A posed a significant threat to NYC restaurants and their customers; that transmission to a customer was as easy as contracting the common cold; that the symptoms included nausea and jaundice; and that that vast majority of NYC restaurants would not be able to survive the civil lawsuits stemming from a Hepatitis A outbreak. In the low threat condition, the article indicated that Hepatitis A posed a very small threat to NYC restaurants and their customers; that transmission to a customer was as unlikely as winning the lottery; that the symptoms included only a mild headache and a scratchy throat; and that the threat of civil lawsuits was very low. The article also varied according to how dignified and respectful a procedure was being proposed for restaurants to deal with this threat. In the high respect procedure condition, the article indicated that a City Health Department official proposed that restaurant managers or a designated employee require all employees to sign a contract agreeing to wash their hands after a visit to the restroom. In the low respect procedure condition, the Health official proposed that the manager or a designated employee observe all employees wash their hands each time they use the restroom. All versions of the story indicated that the intervention would be expected to reduce a restaurant’s risk of a Hepatitis A outbreak to negligible levels. After completing the questionnaire, all participants were thoroughly debriefed, compensated, and thanked for their participation.

Measures

As a check on the procedure manipulation, participants were asked to indicate which of two descriptions of the intervention proposed by a NYC health official was the one described in the news story (signing a contract versus being observed washing one’s hands). A similar dichotomous-choice question was employed as a check of the manipulation of the magnitude of the Hepatitis threat (very small threat and low rate of transmission versus large threat and easy transmission). In addition, composite measures were created as indicators of six constructs (all items were measured with 9-point bi-polar scales): the extent to which the intervention procedure *respected employee rights* (3 items, e.g., How much of an infringement is the sanitation procedure on employee rights?) $\alpha = .89$, $M = 6.2$, $SD = 2.6$; the *magnitude of threat* to the restaurant

(5 items, e.g., How big a problem is Hepatitis A in New York City? How worried should our restaurant be about a Hepatitis A outbreak? How big a risk is Hepatitis A to restaurant customers?) $\alpha = .95$, $M = 4.7$, $SD = 2.8$; the *efficacy of the intervention* procedure (5 items, e.g., If the sanitation procedure is employed in your restaurant, to what extent would the risk of a Hepatitis A outbreak be reduced? How likely is the sanitation procedure to stop Hepatitis A outbreaks in our restaurant? How effective would the sanitation procedure be against Hepatitis A outbreaks?) $\alpha = .88$, $M = 6.6$, $SD = 2.09$; a *relational judgment scale* (7 items, e.g., How respectfully would the person administering the procedure behave? How trustworthy would the person administering the procedure be? To what extent does the procedure treat employees in a neutral and unbiased fashion?) $\alpha = .76$, $M = 6.7$, $SD = 1.52$; *procedural fairness* (3 items, How fair is this sanitation procedure? To what extent is the sanitation procedure a fair response to Hepatitis A outbreaks? In general, how fair would the sanitation procedure be?) $\alpha = .88$, $M = 6.7$, $SD = 2.30$; and a measure of the respondent's *approval of the intervention procedure* (2 items, To what extent are you in favor of employing the sanitation procedure in your restaurant? How do you feel about the sanitation procedure being adopted in your restaurant?) $\alpha = .85$, $M = 6.3$, $SD = 2.9$. On these six composites, scores were transformed as necessary so that 9 = low rights violation; high threat; high efficacy; high relational judgment; high procedural fairness; and, approval of the procedure.

Results

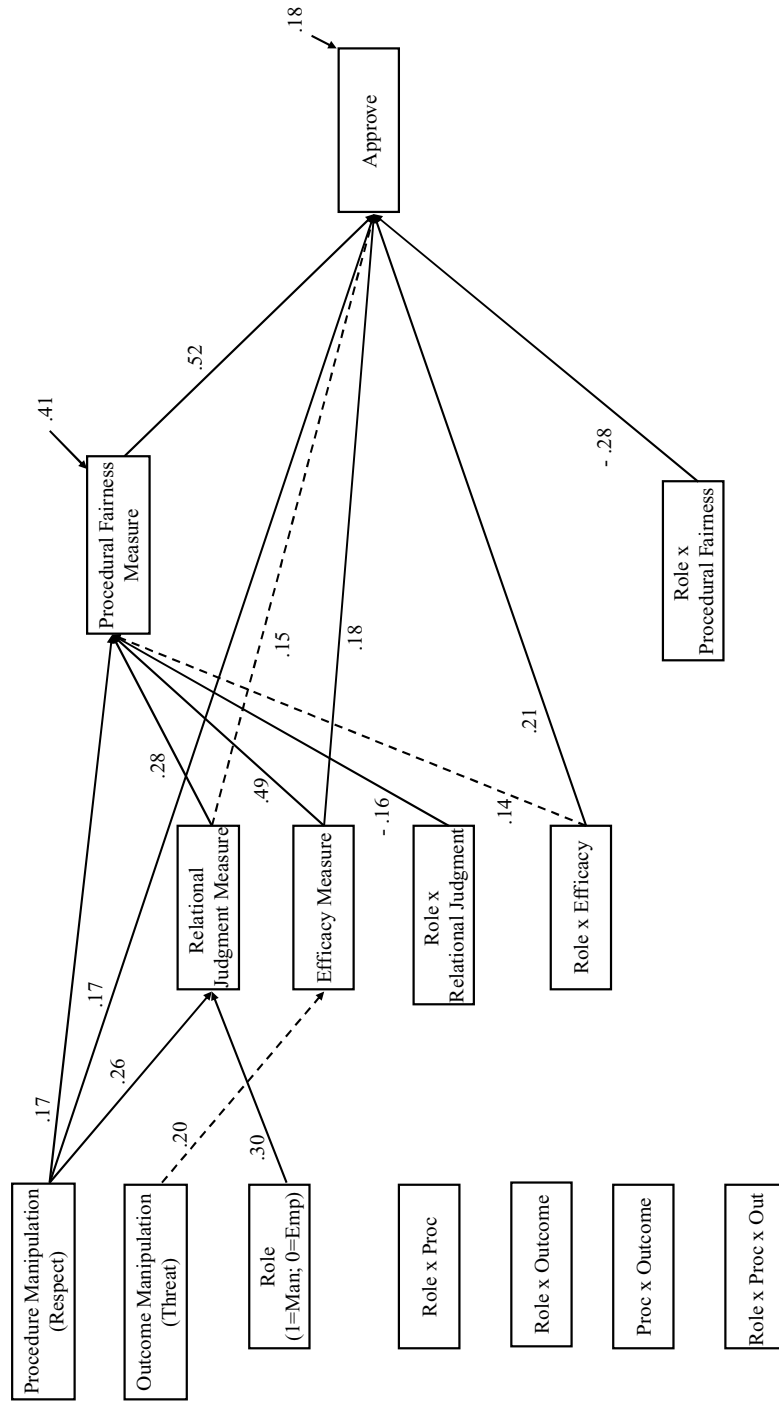
Manipulation checks

Participant responses to the question concerning the nature of the sanitation procedure (sign a contract versus being observed washing hands) indicate that this manipulation was effective, as 91 of 96 responses to this dichotomous question were correct, $\chi^2(1, N = 96) = 77.3$, $p < .001$). Furthermore, a $2 \times 2 \times 2$ ANOVA on the measure of perceived respect for employee rights revealed only a main effect of the procedure manipulation, $F(1, 90) = 10.1$, $p < .01$). Participants in the high respect condition reported a higher level of respect ($M = 6.9$) than did participants in the low respect condition ($M = 5.4$), $d = .64$.

Similarly, responses to the question concerning the magnitude of threat also indicate that this manipulation was effective, as 89 of 97 responses to this dichotomous question were correct, $\chi^2(1, N = 97) = 67.6$, $p < .001$). Furthermore, a $2 \times 2 \times 2$ ANOVA on the measure of perceived threat revealed only a significant effect of the threat manipulation, $F(1, 90) = 136.4$, $p < .001$. Participants in the high threat condition reported a higher level of threat ($M = 6.7$) than did participants in the low threat condition ($M = 2.5$), $d = 2.4$.

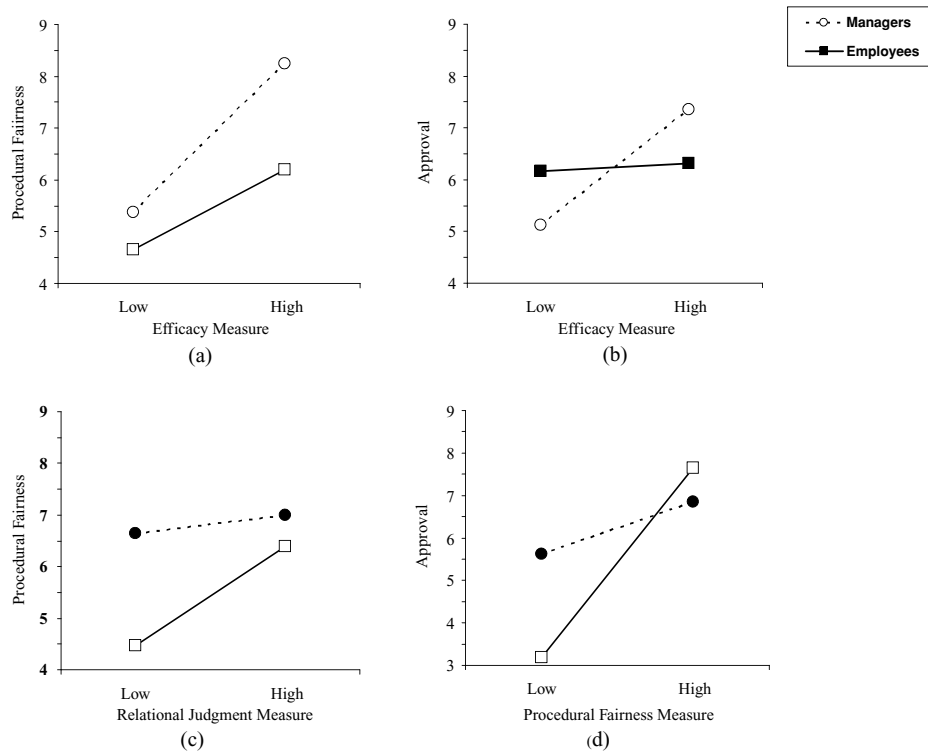
Hypothesis tests

Path analyses were employed to test the two hypotheses. In these analyses, summarized in Fig. 5, the three independent variables are dummy coded (0 = employee; low threat, disrespectful procedure; 1 = owner/manager, high threat, respectful procedure) and all interaction terms are residualized (Cohen, 1978; Lance, 1988). All direct paths were tested from the Column 1 manipulated variable dummies and their interactions to the endogenous variables of relational treatment, efficacy, procedural fairness, and approval. Similarly, all direct paths were tested from relational treatment and efficacy and their interactions with role to the Column 3 variables of procedural fairness and approval. Finally, both of the paths from procedural fairness and from the procedural fairness \times role interaction to approval were tested.



All paths with $p < .06$ are shown. Beta's for significant paths ($p < .05$) are shown as solid lines.

Fig. 5 Path model of restaurant manager and restaurant employee procedural fairness and procedural evaluations (Study 4)



Note. Hollow anchors indicate significant ($p < .05$) slopes.

Fig. 6 Simple effects tests of effects tests of efficacy and relational concerns on procedural fairness, and efficacy and procedural fairness on procedural evaluations among restaurant managers and employees (Study 4)

Several observations about this path model are noteworthy. First, the procedure manipulation had a direct effect on procedural fairness and on the relational judgment scale, such that participants in the contract procedure condition rated the intervention more highly on relational treatment and they rated it as a fairer procedure. In addition, the outcome manipulation had a direct effect on efficacy, and efficacy enhanced both procedural fairness and procedural approval.

Hypothesis 1 predicted that outcome concerns (either the manipulated variable of threat or the perceived efficacy of the intervention, or both) would exert a greater effect on the reactions of the authorities (restaurant managers) than the subordinates (restaurant employees). In support of this hypothesis, Figure 5 shows that both procedural fairness and procedural approval were affected by the predicted role \times efficacy interaction. The simple effects analyses of these interactions are shown in Fig. 6. As predicted by Hypothesis 1, Figure 6a shows that procedural efficacy has a considerably greater effect on procedural fairness among restaurant managers ($B = .69, p < .001$) than among restaurant employees ($B = .37, p < .01$). Similarly, Figure 6b shows that procedural efficacy has a considerable positive effect on manager’s approval of the sanitation procedure ($B = .53, p < .001$), but it has virtually no effect on the approval ratings of the restaurant employees ($B = -.04, p = .76$). Contrary to our prediction however, the interaction between the outcome (threat) manipulation and role did not affect either procedural fairness or procedural approval.

Hypothesis 2 predicted that procedural concerns would exert a greater effect on the reactions of the subordinates than the authorities. In support of this hypothesis, Figure 5 shows that procedural fairness was affected by the predicted role \times relational judgment interaction and that procedural approval was affected by the predicted role \times procedural fairness interaction. The simple effects analyses of these interactions are shown in Fig. 6. Figure 6c shows that relational treatment concerns have a significant and considerably greater effect on procedural fairness among restaurant employees ($B = .63, p < .001$) than among restaurant managers, for whom the relational concerns do not make a significant contribution ($B = .12, p = .53$). Similarly, Figure 6d shows that procedural fairness has a considerably greater favorable impact on restaurant employees' approval of the sanitation procedure ($B = .97, p < .001$) than it does on the restaurant managers' approval, for whom procedural fairness has a considerably smaller effect ($B = .27, p = .07$).

While our hypotheses focused on the between groups comparison of outcomes and procedures among decision makers versus decision recipients, there is an additional within-groups question of interest concerning the role of outcomes versus procedures for procedural fairness and procedural approval among decision makers as well as among decision recipients. In order to address this question, a test for a difference in the magnitude of these correlated correlation coefficients was employed (Meng, Rosenthal, & Rubin, 1992). This test was conducted on the partial correlations among the relevant variables for the sample of restaurant managers and again for the sample of restaurant employees. Among managers ($N = 50$), the relationship between efficacy and procedural fairness (partial $r = .55$) is considerably stronger than the one between relational concerns and procedural fairness (partial $r = .07, z_{\text{difference}} = 3.08, p < .01$). Also among managers, the relationship between efficacy and procedural approval (partial $r = .35$) is not significantly different from the relationship between procedural fairness and procedural approval (partial $r = .20, z_{\text{difference}} = 1.28, p \geq .10$).

An examination of the same correlations among employees ($N = 48$) reveals that the relationship between relational concerns and procedural fairness (partial $r = .39$) is comparable to the relationship between efficacy and procedural fairness (partial $r = .32, z_{\text{difference}} = .45, p > .10$). However, also among employees, the relationship between procedural fairness and procedural approval (partial $r = .56$) is considerably stronger than the relationship between efficacy and procedural approval (partial $r = -.033, z_{\text{difference}} = 3.70, p < .001$).

Discussion

Despite differences between Study 4 and those that preceded it, including a shift from a legal setting to a business setting, a shift from retrospective evaluations in which the outcomes were known to prospective evaluations in which the outcomes are not known, a shift in the operationalization of the procedure and outcome manipulations, and a considerable shift in the nature of the decision maker and decision recipient roles, the findings of Study 4 are generally consistent those of Studies 1–3, and they are consistent with our predictions.

Hypothesis 1 predicted that outcome concerns would exert a greater effect on the reactions of authorities than subordinates. This Hypothesis was supported by the interactions showing that efficacy had a greater effect on procedural fairness and procedural approval among restaurant managers than among restaurant employees. Furthermore, while not explicitly predicted, we did find that outcome concerns mattered more than procedural ones for procedural fairness among managers (a within-role contrast rather than a between role contrast). The manipulated variable of threat did not interact with role on the dependent measures of procedural fairness or procedural approval—a point we return to in our general discussion.

Hypothesis 2 predicted that procedural concerns would exert a greater effect on the reactions of the subordinates than the authorities. This Hypothesis was supported by the interaction between role and the relational judgment variable on the dependent measure of procedural fairness, as relational concerns enhanced procedural fairness for restaurant employees, but they did not influence procedural fairness among restaurant managers. Importantly, this finding is consistent with our findings among decision makers in Studies 1 and 2, in which the procedural fairness impressions of actual judges were also not affected by the procedural criteria of respect once the outcome of the search was known. Hypothesis 2 was also supported by the role \times procedural fairness interaction on the dependent measure of procedural approval, as procedural fairness had a considerably greater effect on procedural approval among employees than among managers. Furthermore, while not explicitly predicted, we found that procedural concerns mattered more than outcome concerns among subordinates (another within-role contrast).

General discussion

We began this inquiry as a test of the proposition that decision makers would evaluate procedures and procedural fairness differently than decision recipients. We observed that research comparing the procedural evaluations of disputants versus decision makers as well as anecdotal evidence from the Supreme Court were consistent with our expectation. These findings suggested that decision makers might evaluate procedures more according to cost-benefit criteria and less according to the types of procedural criteria specified by procedural justice theories.

Studies 1 and 2 addressed these questions by asking actual judges to respond to an experimental questionnaire about a fictitious case in which a defendant challenged the constitutionality of the search procedure leading to his arrest. Both studies manipulated the societal benefits of the search and the fairness of the search procedure. The findings of both studies present a similar picture and suggest that the fairness mediated outcome model provided the best fit to the pattern of judicial decision making. However, both studies also suggest that for these judges, the meaning of fairness is considerably different from what has been reported in numerous studies among decision recipients. Among these judges, both procedural fairness and distributive fairness were heavily influenced by assessments of the benefits of the search. The influence of benefits on procedural fairness judgments was substantially greater than the influence of voice, trust, neutrality, and standing—procedural criteria identified by procedural justice theories (Thibaut & Walker, 1975; Lind & Tyler, 1994) that have been consistently shown to be central to procedural fairness among decision recipients. Furthermore, the dominance of outcome concerns among the judges in Studies 1 and 2 occurred even though the effect size of the procedure manipulation considerably exceeded that of the outcome manipulation in both studies.

Although both studies are suggestive of an authority-subordinate distinction for understanding the importance of procedural fairness for procedural evaluations, neither included role as a variable. Therefore, Study 3 included an experimental manipulation of the participants' role perspective, and Study 4 tapped naturally occurring variability in role. Study 4 supported our prediction that among authorities, but not subordinates, procedural fairness is more strongly affected by outcomes than by relational concerns. This finding is the same as the one obtained among actual judges in Studies 1 and 2. Furthermore, both Studies 3 and 4 supported our prediction that among authorities, but not subordinates, procedural evaluations are more strongly affected by outcome concerns than by procedural ones. In fact, in Study 4, as in Studies 1 and 2, procedural fairness did not make a significant contribution to the authorities' approval of the intervention procedure once outcome variables were included in the model.

Remaining questions

These studies are among the first to systematically examine the moderating effect of role (decision maker–decision recipient) on procedural fairness. While these studies pose a considerable challenge concerning the generalizability of procedural justice theories to decision makers, they also leave many questions unanswered, including ones concerning the generalizability of the role moderation effect, the causal mechanisms responsible for the moderation effect, the procedural and outcome criteria that are susceptible to the moderation effect, and the psychological processes that mediate this effect.

Generalizability

In order to establish the reliability of the decision maker–decision recipient (DM–DR) moderation effect, we have tapped a rather narrow range of allocation settings. Perhaps criminal court judges are particularly prone to perceive violations of the law as a threat to the moral order, and therefore willing to sacrifice procedural protections in order to uphold their moral values (Mullen & Skitka, 2005; Skitka & Houston, 2001). While Study 3, and particularly Study 4, argue against this interpretation by showing moderation among non-judge populations, additional research is required.

Second, the procedures examined in Studies 1–3 were responses to a threat posed to groups that the participants likely identified with (e.g., airline travelers, or students living in campus housing). It is possible that these group threats evoke feelings of group attachment or solidarity among DM's that would not result if the threats were posed to individuals, or to groups that the DM's do not belong to or identify with. Group commitment and social identity have played a central role in theorizing about concerns with respectful treatment (Huo, Smith, Tyler, & Lind, 1996; Smith & Tyler, 1996) and concern for the group's welfare (Dawes, Van De Kragt, & Orbell, 1990). However, whereas justice researchers have pointed to group commitment as a variable that drives *down* DR's concerns with outcomes and drives *up* DR's concern with respectful treatment; our own findings are that when groups are under threat, respect matters little to DM's.

Third, the procedures under consideration in Studies 1–3 were already enacted and their results were known. This hindsight perspective might be particularly likely to orient DM's to outcome concerns since the individual targeted by the procedure has already been caught violating the law. Under such circumstances, judges might relax the presumption of innocence, and decide that the target of the (respectful or disrespectful) no longer deserves due process. This deservingness view of procedural justice has been supported in several previous studies (Heuer, Blumenthal, Douglas, & Weinblatt, 1999; Sunshine & Heuer, 2002).

Finally, the nature of the problems confronting the participants in our completed work have generally been ones highlighting potential harms (e.g., how to prevent airline hijackings) rather than ones highlighting potential opportunities or accomplishments (e.g., opportunities to promote transportation security or public health). Research and theory concerning regulatory focus (Higgins, 1998; Shah & Higgins, 2001; Shah, Higgins, & Friedman, 1998) has shown that individuals respond differently to situations involving the prevention of threats versus the promotion of accomplishments, such that individuals with a prevention focus are concerned with fulfilling obligations and responsibilities while individuals with a promotion focus are concerned with the attainment of hopes and aspirations. This work has also shown that individual differences in regulatory focus can influence individuals' appraisals of situations. This presents the possibility that DM's (who might be chronically vigilant about threats) are particularly inclined to appraise a group threat as one requiring them to act responsibly to protect the group's welfare, leading them to the outcome focus we have observed so far. The regulatory focus work also

suggests, however, that the same process might not be engaged when DM's are confronted with opportunities involving potential gains.

Causal mechanisms

Our findings so far indicate that decision makers are less affected by procedural concerns than are decision recipients. However, decision makers and decision recipients differ from each other in a variety of ways, leaving considerable uncertainty regarding the particular set of proximal variables that are responsible for the moderation effect. For example, DM's are typically the source of the procedures in allocation settings, and they are often not targeted by these procedures, whereas DR's typically are the targets of these procedures. It is possible that this difference is sufficient to explain their different views about the importance of outcomes and respect. While targets of procedures clearly view respectful treatment as a signal about the authority's view of their group standing, the authorities who are implementing those procedures might well have completely different concerns in mind, so that respect (or disrespect) is viewed as a means to obtaining an important group resource, and its consequences for someone else's (the target's) group standing are overlooked. Consistent with this possibility, recent work by Van Yperen and colleagues (Van Yperen, Van Den Bos, & De Graaff, 2005) has shown that the allocator-recipient distinction moderates views of the appropriate distributive justice principle.

Alternatively, DM's often occupy relatively high status positions in the allocation setting, whereas DR's often occupy relatively low status positions. The potential for status to moderate fairness concerns is evidenced by two studies reported by Chen, Brockner, and Greenberg (2003) who found that status moderated the nature of outcome by procedural fairness interactions such that fair procedures *increased* high status individuals' outcome concerns rather than decreasing them as has more typically been observed (Brockner & Wiesenfeld, 1996).

Finally, DM's generally have high decision authority, whereas DR's have low decision authority. It is possible that one's self-perception as responsible for deciding what procedures will be implemented to minimize group threats or maximize group opportunities is sufficient to drive up one's concern for protecting the group's outcomes.

Procedural and outcome criteria

Until now, our studies of the DM-DR moderation effect have focused primarily on the procedural criteria of respect—a procedural variable that the group value (Lind & Tyler, 1988; Tyler, 1989) and relational (Tyler & Lind, 1992) justice theories say affects procedural justice because of its implications for purely relational concerns such as one's group standing. Little is known about the extent to which the DM-DR moderation effect would extend to other procedural variables as well (e.g., accuracy or bias).

Similarly, since Studies 1–3 generally confounded the outcome variables of the seriousness of the threat to the group and the efficacy of the procedural intervention being considered to respond to the group threat, questions remain about the independent contribution of these two different types of outcome concerns. Although Study 4 suggests that DM's have a greater concern with efficacy than threat, a replication of this finding would enhance our confidence in the reliability of this finding.

Psychological processes

Much of the theorizing about fairness has been driven by motivational assumptions. So, for example, Thibaut and Walker (1975) proposed that disputants would base their fairness

judgments on the availability of process and decision control because of their assumption concerning self-interested disputants seeking to maximize fair or beneficial outcomes. Alternatively, Lind and Tyler (1988; Tyler & Lind, 1992) premised their group value theory on the assumption that people are motivated to maintain standing in valued groups. However, these theories are clearly concerned with the motives of the decision recipients who are the targets of procedures (those whose outcomes are being decided by decision makers, and those who are being treated more or less respectfully by authorities) rather than the DM's, who are administering them, and who are generally not the targets of them. Among the candidates for the motivational concerns of decision makers are: striving to maximize the welfare of the threatened group; striving to abide by a perceived responsibility to protect the group's welfare; or striving to assure that those targeted by procedures get the treatment and the outcomes they deserve.

According to Batson, Ahmad, and Tsang (2002), the concern for enhancing the group's welfare is particularly likely to operate for in-groups. Perhaps DM's, by virtue of feeling secure about their group standing, are freed to direct their attention to their group's welfare, leading to a focus on outcomes. However, if DM's were found to focus on outcomes for outgroups as well, this would suggest a different motive—perhaps the motive to fulfill the responsibilities of the DM position. Recently Weber, Kopelman, and Messick (2004) proposed a “logic of appropriateness” framework to decision making in social dilemmas, whereby decision makers strive to discover what people in situations or with positions like theirs are expected to do. DM's might focus on their accountability for adopting a proactive approach to fairness (Greenberg, 1987; Van Yperen, Van Den Bos, & De Graaff, 2005) which requires that they look out for their group's interests.

A final possibility concerns a deservingness motive (Heuer, Blumenthal, Douglas, & Weinblatt, 1999; Sunshine & Heuer, 2002). In this view, the link between respect and fairness is affected by the belief that one deserves respectful treatment—a deservingness-fairness link that is explicit in theories of distributive justice (Lerner, 1977, 2002, 2003; Major, 1994). In two laboratory experiments Heuer et al. (1999) showed that judgments about the value of people's behavior (positive or negative) and attributional judgments about individuals' responsibility for their behaviors moderated the effect of respect so that respect was most important for those individuals who performed positively valued behaviors, particularly those who were responsible for those behaviors. The deservingness hypothesis suggests a reason that judges in our studies perceived procedures as fair according to the outcomes of the police search of the defendant—the outcome of the search (e.g., finding a gun) served as evidence that the defendant is responsible for a negatively valued behavior, so withholding respectful treatment, or curbing due process, might have been perceived as the fair response (Hafer & Begue, 2005). For decision recipients, however, the deservingness calculation might be considerably different. Most participants who contemplate such an encounter are not likely to be ones who would commit the sort of crimes attributed to the defendants in our research, so adopting the perspective of the defendant, even with a deservingness view, they are likely to judge the respectful or disrespectful treatment according to whether it is fair in light of their behavior or their social relationship with the decision maker.

A final consideration concerns the possibility that the outcome dominance among authorities in our studies is a form of a moral mandate effect (Mullen & Skitka, 2005; Skitka & Houston, 2001; Skitka & Mullen, 2002). According to Mullen and Skitka (2005), when people have strong moral convictions concerning the outcomes at stake, procedural and outcome fairness are dominated by whether there is a match between the obtained outcome and the morally mandated one. So, for example, if the judges in Studies 1 and 2 perceived the hijacking threat as a threat to a core moral value, the findings obtained in those studies would be expected as a result of the emotional reaction to the threat (Mullen & Skitka, 2005). The evidence for moral mandates is convincing and this interpretation cannot be ruled out short of additional tests concerning the

judge's attitude strength and moral convictions about potential hijackings. However, there are several reasons to think the effects obtained in the studies above stem from a different process. First, while the judges in Study 1 clearly think the positive outcome was highly valuable, their responses to the outcomes in Study 2 are not suggestive of attitudes with the extremity that would accompany a moral mandate (see Table 2). Furthermore, it seems unlikely that the respondents in Study 4 perceived the hepatitis risk as threat to a core moral value. Finally, the moral mandate hypothesis can not readily explain the role moderation effect obtained in Studies 3 and 4, except by way of suggesting that the threats were perceived as ones concerning moral mandates among authorities, but not among subordinates—a possibility that merits consideration in future research.

Conclusion

We think these studies raise important applied as well as theoretical issues. Decision makers would be well advised to be sensitive to procedural fairness, in light of the abundance of research demonstrating its effect on such important policy concerns as disputant satisfaction with the allocation of resources, and the perceived legitimacy of decision authorities and institutions. Our studies suggest a paradox: authorities' best efforts to resolve conflicts in a fair manner might leave disputants dissatisfied because of the divergent notions of fairness held by authorities and subordinates.

From a theoretical perspective, theories of procedural justice are aimed at individuals in social conflict, and to our knowledge, none of these theories has explicitly specified the situational parameters (such as one's role in conflict) that are outside its domain. While numerous theorists have suggested that the meaning of fairness changes across situations (e.g., Flynn & Brockner, 2003; Leventhal, Karuza, & Fry, 1980; Lissak & Sheppard, 1983; Sheppard, Saunders, & Minton, 1988; Stahl, Van Prooijen, & Vermunt, 2004; Tyler, 1986), and others have suggested that either outcome concerns or relational ones can be influential in different contexts (Skitka, 2002; Skitka & Houston, 2001; Van Den Bos, Vermunt, & Wilke, 1997), none of these perspectives have explicitly identified the role contrast considered here. Lind and Tyler (1988) called for new theories that integrate resource concerns and group value concerns—precisely the concerns that are moderated by the role effect examined here. The contrast between the manner in which the authorities in our studies are defining fairness and the way the respondents in the Lind et al. (1990) study are defining it should be accounted for by any integrative theory.

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