

Procedural justice in authority relations: The strength of outcome dependence influences people's reactions to voice

JAN-WILLEM VAN PROOIJEN^{1*},
KEES VAN DEN BOS² AND HENK A. M. WILKE³

¹*Department of Social Psychology, Free University
Amsterdam, The Netherlands*

²*Department of Social and Organizational
Psychology, Utrecht University, Utrecht,
The Netherlands*

³*Department of Social and Organizational
Psychology, Leiden University, Leiden,
The Netherlands*

Abstract

In this article, we study how the strength of outcome dependence, defined as the extent to which people's outcomes depend on authority's decisions, influences their reactions to voice or no-voice procedures. We suggest that in situations where people are strongly outcome dependent they assume that the authority may not consider their views, and therefore voice procedures exert less influence on people's procedure judgments than in situations where they are not strongly outcome dependent. Findings of two experiments corroborate this line of reasoning: In strongly outcome dependent situations, recipients' procedure judgments are influenced less strongly by voice versus no-voice procedures than in moderate or weak outcome dependent situations. Furthermore, these effects were found for both pre-decision voice (Experiment 1) and for post-decision voice (Experiment 2). It is concluded that strong outcome dependence decreases the value-expressive function of voice opportunities. Copyright © 2007 John Wiley & Sons, Ltd.

Justice is a key issue for understanding social behavior, as people are influenced profoundly by the extent to which they perceive social situations as fair or unfair (Folger, 1984). An important conceptualization of social justice judgments is the extent to which people perceive decision-making processes as fair. Social psychologists have referred to the perceived fairness of decision-making procedures as the psychology of procedural justice (Lind & Tyler, 1988; Smith & Tyler, 1996, 1997; Smith, Tyler, Huo, Ortiz, & Lind, 1998; Thibaut & Walker, 1975; Tyler & Blader, 2003; Tyler & Lind,

*Correspondence to: Dr Jan-Willem van Prooijen, Department of Social Psychology, Free University Amsterdam, Van der Boerhorststraat 1, 1081 BT Amsterdam, The Netherlands. E-mail: jw.van.prooijen@psy.vu.nl

1992; Van den Bos & Lind, 2002). Procedural justice phenomena are usually studied in a specific type of interpersonal relations, namely authority relations. After all, people usually experience fair or unfair procedures in their encounters with decision-makers (Tyler & Lind, 1992). In correspondence with this observation, procedural justice effects have been studied in the context of people's experiences with management teams, politicians, teachers, police officers, judges, experimenters, and other authorities (for overviews, see e.g., Cropanzano, Byrne, Bobocel, & Rupp, 2001; Folger & Cropanzano, 1998; Tyler & Blader, 2003; Lind & Tyler, 1988; Tyler & Lind, 1992). Authority relations are thus central in recipients' experiences of procedural justice.

An authority relation is a specific type of interdependence relation, because authorities usually have at least some control over decisions that influence recipients' outcomes (Rusbult & Van Lange, 1996; Thibaut & Walker, 1975; see also Houlden, LaTour, Walker, & Thibaut, 1978). Recipients often assume that they are more dependent on authorities than vice versa (Tyler & Lind, 1992; Van den Bos, Wilke, & Lind, 1998). We refer to the extent to which recipients believe that their outcomes depend on authorities' decisions as *the strength of outcome dependence*. Previous research has investigated direct relations between the strength of outcome dependence and procedural justice judgments (e.g., Houlden et al., 1978; Thibaut & Walker, 1975). In a dispute resolution setting, research by Houlden et al. (1978) indicated that people prefer decision-making procedures that grant authorities a certain amount of decision control (i.e., control over the final decision), but people generally preferred to retain process control for themselves (i.e., control over the presentation of evidence). These results suggest that people are comfortable with certain levels of outcome dependence, as long as it is possible to have meaningful interactions with the authority.

It must be noted, however, that in authority relations people are likely to perceive themselves on a continuum ranging from extreme outcome dependence to outcome independence. Sometimes decisions are made in social situations where recipients perceive themselves as so strongly dependent that they believe meaningful interactions with the authority are barely possible. For instance, in autocratic political regimes or in extremely hierarchical organizations such as the army, subordinates may be reluctant to engage in an open discussion with their superiors. This contrasts with how people relate to authorities in less dependent situations. In social structures that are relatively more egalitarian, such as representative democracies, people often regard an open discussion with decision-makers as a desirable and realistic possibility. In the current research, we assess people's responses to decision-making procedures in strongly dependent situations as compared with less strongly dependent situations.

VOICE AND OUTCOME DEPENDENCE

An illustration of a typical procedural justice phenomenon can be found in the effects of voice: People tend to evaluate procedures that allow them an opportunity to voice their opinion as fairer than procedures that deny them such an opportunity (see, e.g., Folger, 1977; Folger, Rosenfield, Grove, & Corkan, 1979). Furthermore, voice procedures positively influence numerous other variables, such as people's affective reactions (e.g., Folger et al., 1979; Lind & Tyler, 1988). The effects of voice procedures have origins beyond people's desire to influence subsequent decisions, which is evidenced by findings that voice effects materialize even if people's opinions did not influence the final decision. For instance, research has revealed that people perceive their outcomes as fairer following voice as opposed to no-voice procedures even if authorities first make a decision and only then allow recipients an opportunity to voice their opinions ('post-decision voice'; Lind, Kanfer, & Earley, 1990; see also Platow, Filardo, Troselj, Grace, & Ryan, 2006). Tyler (1987) noted that voice has an important

value-expressive function: Being provided with the opportunity to speak has value in itself, independent from people's desire to influence subsequent decisions. The reason for this is that being allowed voice communicates that the authority is willing to consider the recipient's views, and hence, it suggests that the authority makes an effort to be polite, to respect the rights of the recipient, and to be a fair decision-maker (Tyler & Blader, 2003; Tyler & Lind, 1992).

Empirical studies suggest that when people perceive themselves as strongly outcome dependent on authorities, their positive reactions to voice procedures might be decreased. In particular, research on the relation between power distance values and voice procedures suggested and found that people who have higher power distance values place less weight on the quality of their treatment by authorities than people who have lower power distance values (Tyler, Lind, & Huo, 2000). Further evidence for this idea was produced by findings that people who live in high power distance cultures are less influenced by voice procedures than people who live in low power distance cultures (Brockner et al., 2001). Tyler et al. (2000) and Brockner et al. (2001) explained their findings by asserting that people with high power distance values anticipate role-constrained interactions with authorities, because they regard outcome dependence as a natural aspect of the social hierarchy. In contrast, people with low power distance values expect authorities to share their power, and therefore feel entitled to having voice in the decision-making process.

In these previous studies, power distance was regarded as a cultural dimension that specifies individual differences in people's normative belief systems regarding the extent to which they should have voice in a decision-making process (Brockner et al., 2001; Tyler et al., 2000). The current research was designed to extend these previous studies in two ways. As a first extension, we argue that individual differences in normative beliefs are not necessary to find effects of outcome dependence on reactions to voice procedures. In two experiments, we tested the prediction that when participants are randomly assigned to situations where they are versus are not strongly outcome dependent, a similar moderating influence on reactions to voice procedures is likely to occur: When people believe to be strongly outcome dependent, we expect them to display less positive reactions to voice procedures than when they do not believe to be strongly outcome dependent. The reason for this is that if people believe that they are strongly outcome dependent on an authority, they are likely to believe that they are unable to have meaningful interactions with the authority. That is, the strong outcome dependent relation may promote suspicions that the authority might not seriously consider recipients' views, and thus does not display a genuine effort to be polite or to be a fair decision-maker. As such, a second extension of the current research is that we investigate whether the effects of strong outcome dependence on reactions to voice procedures are attributable to the implications for the value-expressive function that voice opportunities may serve. That is, we expected to find effects of strong outcome dependence on people's reactions to voice opportunities before a decision (Experiment 1) but also to post-decision voice (Experiment 2). In the following, we introduce our experiments in more detail.

EXPERIMENT 1

Given that we predict weak voice effects in situations where people's outcomes depend strongly on authority's decisions, our line of reasoning implies that previous research has discovered voice effects predominantly in situations where recipients did not believe to be strongly outcome dependent. In developing this idea, we describe how the strength of outcome dependence was operationalized in some of the previous procedural justice experiments that adopted the same experimental paradigm as the current studies (e.g. Van den Bos, 1999, 2001; Van den Bos & Van Prooijen, 2001; Van den Bos, Wilke, & Lind, 1998; Van Prooijen, Karremans, & Van Beest, 2006; Van Prooijen, Van den Bos, & Wilke, 2002,

2004, 2005). Participants were led to believe that a lottery would be held among all participants, and that a few lottery tickets would be divided between the participant and another participant. Participants typically were not told explicitly that their number of lottery tickets depended on the experimenter's decision, which allowed the impression that recipients were not fully (but only moderately) outcome dependent on the authority. As a consequence, subsequent voice opportunities about how lottery tickets should be divided may have led recipients to believe that the authority was considering their views, which increased their evaluations of the way they were treated. This line of reasoning suggests that if recipients are explicitly informed that they are strongly outcome dependent (e.g., explicit information that their number of lottery tickets depends on the experimenter's decisions), recipients are predisposed to skepticism about the extent to which the authority will consider their views (cf. Tyler, 1987; Tyler et al., 2000). Based on this line of reasoning we hypothesize that voice as opposed to no-voice procedures exert less positive effects on people's evaluations of the way they are treated if they receive explicit information that they are strongly outcome dependent than if they receive no such information.

To test this hypothesis, we set up an experiment in which recipients received implicit or explicit outcome dependence information. In correspondence with previous procedural justice experiments, participants were told that some lottery tickets would be divided between themselves and another participant. Participants in the explicit condition were then told that the number of lottery tickets they would receive depended on the experimenter's decision, whereas participants in the implicit control condition did not receive this information. After this, the experimenter did versus did not allow participants an opportunity to voice their opinions about how lottery tickets should be divided. The dependent measures were participants' evaluations of the way they were treated (Tyler & Lind, 1992).

Method

Participants and Design

We tested our prediction in a 2 (outcome dependence: implicit vs. explicit) \times 2 (procedure: voice vs. no-voice) factorial design. Participants were 80 students at Leiden University (18 men, 62 women), varying in age from 18 to 28 years. The design was balanced with 20 participants randomly assigned to each experimental condition. The experiment was preceded by two other, unrelated experiments. Together the experiments lasted a total of 1.5 hours. All participants participated voluntarily and were paid 20 Dutch guilders for their participation in the experiments (1 Dutch guilder equaled US \$0.50 at the time the present studies were conducted).

Experimental Procedure

On arrival at the laboratory, participants were led individually to separate cubicles. Each cubicle contained computer equipment, which was used to present the stimulus information. The experiment was presented as a study on how people perform tasks. It was suggested that in another cubicle, another person participated, a person referred to as 'Other' for the rest of the experiment. Furthermore, participants were told that the experimenter could send messages to the participants by means of a computer network (in fact, all stimulus information was preprogrammed; a procedure to which none of the participants objected upon debriefing).

The experimental procedure was then explained to the participants. Participants would perform tasks in two rounds: a practice round of 2 minutes and a work round of 10 minutes. Furthermore, participants were informed that, after all participants had completed the experiment, a lottery would be

held among all participants. The winner of this lottery would receive a prize of 100 Dutch guilders. Participants were told that a total of 200 lottery tickets would be divided among all participants. Furthermore, participants were told that after the work round some lottery tickets would be divided between the participant and Other. To enhance comprehension of the experimental procedure, some practice questions were posed. If participants gave a wrong answer to a question, the correct answer was disclosed and the main characteristics of the experimental procedure were repeated.

Participants then conducted the tasks, which entailed the counting of squares within larger figures (for detailed descriptions of the tasks, see Van den Bos & Van Prooijen, 2001; Van den Bos, Wilke, & Lind, 1998). At the end of the work round, all participants were informed that Other had completed a comparable number of tasks. We then manipulated outcome dependence. In the explicit condition, participants read a sentence stating that the number of lottery tickets they would receive depended on the experimenter's decision, thereby receiving explicit information that they were strongly outcome dependent. Participants in the implicit control condition did not read the explicit outcome dependence sentence, thereby being a replication of what default has been done in previous procedural justice experiments (see, e.g., Van den Bos, 2001; Van den Bos & Van Prooijen, 2001; Van den Bos, Wilke, & Lind, 1998; Van Prooijen et al., 2002, 2004, 2005).

The manipulation of procedure was then administered to the participants. Participants in the voice condition were informed that they were allowed an opportunity to voice their opinion about the percentage of lottery tickets that they should receive relative to Other, and were asked to type in this percentage. Participants in the no-voice condition were informed that they were not allowed an opportunity to voice their opinion about the percentage of lottery tickets that they should receive relative to Other, and were not asked to type in this percentage. Participants were then informed that they received three lottery tickets and were left uninformed about the lottery tickets Other received (cf. Van den Bos, Wilke, Lind, & Vermunt, 1998). We then assessed the dependent measures and the manipulation checks.

The main dependent measures were six items that measured participant's evaluations of the way they were treated (1 = *not at all*, 7 = *very much*). Specifically, participants were asked how fair, just, and appropriate the way they were treated was, and how satisfied, glad, and happy they were with the way they were treated. It turned out that these six items were strongly correlated ($r_s > .69$, $p_s < .001$), and, in correspondence with previous research (Van den Bos & Lind, 2001; Van Prooijen et al., 2005), we averaged them to form a reliable composite scale of participants' procedure judgments ($\alpha = .96$).¹

We checked the dependence manipulation with two items (1 = *not at all*, 7 = *very much*): 'To what extent was it made explicit that you were dependent on the experimenter for the number of lottery tickets that you would receive?' and 'To what extent was it emphasized that you were dependent on the experimenter for the number of lottery tickets that you would receive?'. These two items were averaged into a reliable explicitness scale ($\alpha = .96$). Furthermore, to ascertain whether the dependence manipulation was successful in inducing varying levels of outcome dependence, participants were asked the following question: 'To what extent were you dependent on the experimenter for the number of lottery tickets you would receive?' (1 = *not at all*, 7 = *very much*).

The procedure manipulation was checked with the following two questions (1 = *not at all*, 7 = *very much*): 'Did you get an opportunity to voice your opinion?' and 'To what extent did you get an

¹It has been argued in the literature that procedural fairness and satisfaction judgments may be so closely related that it is appropriate to focus on the convergence rather than on the divergence of the two (see, e.g., Brockner & Wiesenfeld, 1996; Cropanzano & Greenberg, 1997). As a result of this insight, it is not uncommon to combine both types of judgments into one general measure of procedure judgments (see, e.g., Van den Bos & Lind, 2001; Van Prooijen et al., 2005). However, other studies have found that in specific situations, such as when evaluating social comparison-based outcomes, these types of judgments are perceived differently by participants (Van den Bos, Wilke, Lind, et al., 1998). Given that in both our current experiments these judgments were so strongly correlated, we averaged participants' answers into a reliable measure of procedure judgments (cf. Van den Bos & Lind, 2001).

opportunity to voice your opinion?'. These items were averaged to form a reliable procedure check scale ($\alpha = .95$). After this, participants were debriefed, thanked, and paid for their participation.

Results and Discussion

Manipulation Checks

The results were analyzed by means of 2×2 analyses of variance (ANOVAs). On the explicitness scale we found a significant main effect of outcome dependence information only, $F(1, 76) = 88.24$, $p < .001$, $\eta^2 = 0.54$. Participants rated dependence to be made more explicit in the explicit condition ($M = 6.81$, $SD = 0.50$) than in the implicit condition ($M = 3.75$, $SD = 1.98$).

Furthermore, on the outcome dependence question we found a significant outcome dependence information main effect only, $F(1, 76) = 8.20$, $p < .01$, $\eta^2 = 0.10$. Participants in the explicit condition perceived themselves to be more outcome dependent ($M = 6.50$, $SD = 1.13$) than participants in the implicit condition ($M = 5.58$, $SD = 1.74$). Additionally, in the implicit condition the moderately high mean (5.58 on a seven-point scale) suggested that participants perceived themselves as moderately strongly dependent, whereas in the explicit condition the very high mean (6.50 on a 7-point scale) suggested that participants perceived themselves as very strongly dependent, as was intended with this manipulation. These results indicate that the manipulation of outcome dependence information was successful in varying the relative strength of participants' perceived outcome dependence.

On the procedure check scale we found a significant main effect of procedure only, $F(1, 76) = 848.24$, $p < .001$, $\eta^2 = 0.92$. Participants in the voice condition perceived more opportunities to voice their opinions ($M = 6.15$, $SD = 1.08$) than participants in the no-voice condition ($M = 1.04$, $SD = 0.24$). From these findings we conclude that participants perceived the experimental manipulations as intended.

Procedure Judgments

On the procedure judgments scale, we found a significant main effect of procedure, $F(1, 76) = 45.92$, $p < .001$, $\eta^2 = 0.38$. More important, however, a significant interaction between outcome dependence information and procedure also emerged, $F(1, 76) = 4.64$, $p < .03$, $\eta^2 = 0.06$. Means and standard deviations are presented in Table 1. In correspondence with our hypothesis, the effect of procedure was stronger in the implicit condition, $F(1, 76) = 39.87$, $p < .001$, $\eta^2 = 0.34$, than in the explicit condition,

Table 1. Means and standard deviations of procedure judgments as a function of outcome dependence information and procedure

	Outcome dependence information			
	Implicit		Explicit	
Procedure	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Voice procedure	4.81 _a	1.25	3.80 _b	1.15
No-voice procedure	2.44 _c	1.15	2.58 _c	1.18

Note. Means are on seven-point scales, with higher values indicating more positive procedure judgments. Means with no subscript in common differ as indicated by Tukey's HSD test ($p < .05$).

$F(1, 76) = 10.68, p < .01, \eta^2 = 0.12$. Furthermore, it can be noted here that the effect of outcome dependence information was significant in the voice condition, $F(1, 76) = 7.24, p < .01, \eta^2 = 0.09$, but not in the no-voice condition, $F(1, 76) = 0.13, p = .72, \eta^2 = 0.00$. Thus, outcome dependence information led to less positive procedure judgments among participants who were granted voice but did not influence procedure judgments of those who were denied voice.

To summarize, the results corresponded to the hypothesis that explicit information that the recipient is strongly outcome dependent yields weaker voice effects than an implicit control condition. In Experiment 2 we try to replicate and extend these findings.

EXPERIMENT 2

In Experiment 2, we extended Experiment 1 in two important ways. First, based on Experiment 1 it is not entirely clear whether the effects are driven by explicitness or strength of outcome dependence. The purpose of the manipulation of explicit outcome dependence that we used in Experiment 1 was to operationalize the strength of outcome dependence, and our line of reasoning implied that it was strength, and not explicit information (making outcome dependence salient) *per se*, that decreased the effects of voice procedures. In Experiment 2, we manipulated strong versus weak outcome dependence: Participants received explicit information that their number of lottery tickets depended either on the experimenter's decisions (strong dependence) or on their own task performance (weak dependence). Based on our line of reasoning, we expected a stronger procedure effect in the weak as opposed to the strong outcome dependent condition. Given that both weak and strong outcome dependence was communicated explicitly to participants, this experiment was designed to investigate whether or not the effects apply only to strongly dependent situations.

As a second extension, we tested in Experiment 2 the assumption that outcome dependence has implications for the value-expressive function of voice procedures. In particular, in Experiment 1 we manipulated voice versus no-voice before the decision was made. Based on Experiment 1 alone, it can therefore not be concluded whether outcome dependence influences responses to voice procedures because of the implications for recipients' instrumental concerns (e.g., trying to influence the decision through voice) or because of the implications for value-expressive aspects of voice (e.g., having the feeling that the authority displays a genuine effort to be polite). Following Lind et al. (1990) we manipulated procedure by using a manipulation of post-decision voice. That is, participants were granted or denied voice *after* having received the outcome. If people express their opinions after having received the outcome, these opinions cannot influence the outcomes. Effects of post-decision procedures therefore are attributable only to noninstrumental implications of the procedure. As such, effects of outcome dependence on responses to post-decision voice would be consistent with our line of reasoning that outcome dependence promotes suspicions that the authority may not seriously consider the recipients' views.

Method

Participants and Design

We tested our hypothesis in a 2 (outcome dependence: weak vs. strong) \times 2 (procedure: voice vs. no-voice) factorial design. Participants were 80 students at Leiden University (16 men, 64 women), between 18 and 35 years of age. The experiment was preceded by another, unrelated experiment. All participants voluntarily participated in the two experiments and were paid 15 Dutch guilders for their participation in the two experiments.

Experimental Procedure

Up until the tasks, the procedure was identical to Experiment 1. After the work round had ended, participants were again informed that Other had completed a comparable number of tasks. We then manipulated outcome dependence. In the weak outcome dependence condition, participants were informed that the number of lottery tickets they would receive depended on their own task performance and not on the experimenter's decision. In the strong outcome dependence condition, participants were informed that the number of lottery tickets they would receive depended on the experimenter's decision and not on their own task performance. We then provided participants with an outcome: Following Van den Bos, Wilke, and Lind (1998), all participants were informed that they received three lottery tickets. After this, procedure was manipulated. In the post-decision voice condition, participants were asked to voice their opinion about the percentage of lottery tickets they believe that they should have received relative to Other, and to type in this percentage. In the post-decision no-voice condition, participants were informed that they were not allowed an opportunity to voice their opinion about the percentage of lottery tickets they believe they should have received relative to Other.

We then measured participants' procedure judgments with the same six items as in Experiment 1. Again, these items were strongly correlated ($r_s > .77, p_s < .001$), and we therefore averaged them into a reliable composite measure of procedure judgments ($\alpha = .97$). To check the outcome dependence manipulation, we asked the following questions (1 = *not at all*, 7 = *very much*): 'To what extent did the number of lottery tickets that you received depend on the experimenter's decision?' and 'To what extent did the number of lottery tickets that you received depend on your own task performance?' (recoded). These two items were averaged into a reliable outcome dependence scale ($\alpha = .91$). We checked the manipulation of procedure with the questions (1 = *not at all*, 7 = *very much*): 'Did you get an opportunity to voice your opinion?' and 'To what extent did you get an opportunity to voice your opinion?'. These items were averaged to form a reliable procedure check scale ($\alpha = .98$). After this, the experiment ended and all participants were debriefed, thanked, and paid for their participation.

Results and Discussion

Manipulation Checks

A 2×2 analysis of variance (ANOVA) on the dependence scale yielded a main effect of the outcome dependence manipulation only, $F(1, 76) = 195.11, p < .001, \eta^2 = 0.72$. In the weak outcome dependence condition, participants believed that the number of lottery tickets they received depended less on the experimenters' decision ($M = 2.40$) than in the strong outcome dependence condition ($M = 6.64$).

An ANOVA on the procedure check scale yielded a significant main effect of the procedure manipulation only, $F(1, 76) = 548.70, p < .001, \eta^2 = 0.88$. Participants in the voice condition felt they had more opportunities to voice their opinion ($M = 6.40$) than participants in the no-voice condition ($M = 1.08$). These results indicate that the experimental manipulations were perceived as intended.

Procedure Judgments

An ANOVA on the procedure judgments scale yielded significant main effects of procedure, $F(1, 76) = 14.63, p < .001, \eta^2 = 0.16$, and outcome dependence, $F(1, 76) = 5.61, p < .03, \eta^2 = 0.07$. More importantly, these main effects were qualified by a significant interaction effect, $F(1, 76) = 6.11$,

Table 2. Means and standard deviations of procedure judgments as a function of outcome dependence and procedure—Experiment 2

Dependent variable	Outcome dependence			
	Weak		Strong	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Procedure judgments				
Voice procedure	5.27 _a	1.43	3.72 _b	1.52
No-voice procedure	3.25 _b	1.44	3.28 _b	1.33

Note. Means are on seven-point scales, with higher values indicating more positive procedure judgments. Means with no subscript in common differ as indicated by Tukey's HSD test ($p < .05$).

$p < .02$, $\eta^2 = 0.07$. Means and standard deviations are presented in Table 2. In accordance with our hypothesis, the effect of procedure was significant in the weak outcome dependence condition, $F(1, 76) = 19.82$, $p < .001$, $\eta^2 = 0.21$, and was not significant in the strong outcome dependence condition, $F(1, 76) = 0.92$, $p = .34$, $\eta^2 = 0.01$. Furthermore, it can be noted that the effect of outcome dependence was significant in the voice condition, $F(1, 76) = 11.71$, $p < .01$, $\eta^2 = 0.13$, and was not significant in the no-voice condition, $F(1, 76) = 0.01$, $p = .94$, $\eta^2 = 0.00$. These results are in correspondence with the findings of Experiment 1.

To summarize, these results replicate and extend the findings of Experiment 1. The findings again indicate that strong outcome dependence decreases people's positive reactions to voice procedures. Furthermore, Experiment 2 revealed that it is strength of outcome dependence, and not explicitness or salience, that drives the effects. Finally, in Experiment 2 the predicted pattern emerged following a manipulation of post-decision voice versus no-voice. Although this finding does not exclude the possibility that outcome dependence also influences people's instrumental motivations to have voice, it does corroborate our assumption that outcome dependence has implications for the value-expressive function that people attach to voice procedures.

GENERAL DISCUSSION

Findings of two experiments corroborated our hypothesis: Information that participants were strongly outcome dependent reduced the positive effects of voice on procedure judgments in comparison with a moderate outcome dependent condition (Experiment 1) and a weak outcome dependent condition (Experiment 2). Furthermore, outcome dependence influenced participants' reactions to voice procedures but did not influence participants' reactions to no-voice procedures, which suggests that the present results are attributable to a decreased valence of voice opportunities in strongly dependent situations. Moreover, in Experiment 2 the effects were demonstrated using a post-decision voice procedure (Lind et al., 1990). All these findings support the argument that the perceived strength of outcome dependence moderates people's reactions to voice procedures (cf. Tyler et al., 2000), and that this is the case because of the implications of outcome dependence for the value-expressive function of voice.

Inspection of the results revealed that the strong outcome dependent condition yielded a significant procedure effect in Experiment 1, and a nonsignificant procedure effect in Experiment 2. This divergence may be caused by the fact that in Experiment 1 we manipulated pre-decision voice versus

no-voice procedures, whereas in Experiment 2 we manipulated post-decision voice versus no-voice procedures. Our line of reasoning implies that outcome dependence has relational implications for recipients, thereby influencing their reactions to voice procedures. However, pre-decision voice matters to people not only for relational, but also for instrumental reasons (Lind et al., 1990). That is, pre-decision voice may create a sense (or, perhaps, illusion) of control over one's outcomes, a sense that is likely to be absent when people are granted voice after the decision has been made. As such, the procedure effect in the strongly outcome dependent condition may have become significant in Experiment 1 because of outcome-related concerns. An additional consequence of this was that the outcome dependence main effect became significant in Experiment 2 but not in Experiment 1. Looking at the means in Tables 1 and 2, this main effect was caused by the large difference in responses to voice procedures in Experiment 2, a difference that, although significant, may have been less pronounced in Experiment 1. Be that as it may, more important for the current purposes was the finding that strong outcome dependence reduced the effects of voice; a finding that was replicated in both experiments.

In correspondence with previous research (e.g., Van den Bos & Van Prooijen, 2001; Van den Bos, Wilke, & Lind, 1998; Van Prooijen et al., 2002), participants were explicitly granted or denied voice in both experiments. It was important to do so, because it has been shown before that implicit no-voice procedures (i.e., not mentioning the possibility of voice) are less successful in creating a sense of procedural unfairness in laboratory experiments (Van den Bos, 1999). When participating in a laboratory experiment, participants are not likely to expect voice opportunities. Not mentioning the possibility of voice may therefore go unnoticed, and thus fail to create a sense of procedural unfairness. Indeed, in everyday life people experience procedural unfairness following no-voice procedures only in situations where they believe that authorities could and should listen to them (Folger & Cropanzano, 2001). It can therefore be argued here that the explicit denial of voice better mirrors no-voice procedures in everyday life than implicit no-voice procedures.

In the present experiments, we made efforts to exclude a number of potential alternative explanations. One of them is salience (or explicitness) of outcome dependence, which may be a possible alternative explanation of the findings obtained in Experiment 1. In Experiment 2, therefore, we made outcome dependence salient in both the high and low conditions, yet we found the predicted differences between the conditions. Thus, salience of outcome dependence cannot explain the results of Experiment 2, and this makes outcome salience unlikely as alternative explanation. In addition, the present results are not attributable to social category differences, given that no social category differences were salient within the experiments, and the influence of natural social categories was excluded by assigning participants randomly to conditions. It must be noted, however, that our outcome dependence manipulation may have influenced the perceived legitimacy of the decision-making process. Although it is impossible to check for this possibility (we did not include measures of legitimacy), we believe that this possibility is closely related to our reasoning that outcome dependence influences the value-expressive component of voice procedures. After all, we reasoned that strong outcome dependence may promote the inference that the authority may not consider recipients' views. This autocratic perception of the authority may, in turn, be considered as illegitimate, reinforcing the negative evaluations of the decision-making procedures. As such, attributions of illegitimacy do not necessarily invalidate our line of reasoning, but rather, such an interpretation would be a specification that is consistent with our general argument.

The current experiments may inform scientists about social psychological processes that can potentially occur in numerous social situations. In our world, people often find themselves in strongly outcome dependent situations. For instance, people who are governed by an autocratic regime or a dictator, people who work in hierarchically structured organizations, children in boarding schools that adopt very strict policies, and the like, all constitute instances of recipients that have to deal with authorities that they are strongly outcome dependent on. The present findings suggest that, in such

situations, recipients may respond with skepticism when the authorities ask them to voice their opinions. An additional implication of this is that, paradoxically, it may be relatively hard for extremely powerful leaders to gain the trust and respect of their subordinates, because attempts to be fair easily are interpreted as malicious. These implications are highly speculative, of course, and the present findings need to be complemented by applied studies that investigate procedural justice effects in these strongly outcome dependent situations. More generally, although the findings presented here may not be instantly applicable to all possible types of social situations—as usually is the case in experimental research—the conclusions that we draw extend existing procedural justice theories (Thibaut & Walker, 1975; Tyler & Lind, 1992) and may therefore provide a more solid theoretical base for both fundamental and applied research.

To conclude, since the pioneering work of Thibaut and Walker (1975), procedural justice research has tacitly assumed a specific outcome dependence relation by focusing on people's encounters with authorities (for an overview, see, e.g., Tyler & Lind, 1992). Our aim was to investigate the role of outcome dependence in the psychology of procedural justice, leading to the conclusion that in strongly outcome dependent situations people's positive reactions to voice procedures can sometimes be decreased. The strength of outcome dependence thus moderates people's reactions to voice procedures.

ACKNOWLEDGEMENTS

This research was supported by the Netherlands Organization for Scientific Research (NWO), project number 575–31–015. The authors thank E. Allan Lind and Paul A. M. van Lange for their comments on previous drafts of this article. Furthermore, we thank Jamie De Coster for his help in previous stages of this project.

REFERENCES

- Brockner, J., Ackerman, G., Greenberg, J., Gelfand, M., Francesco, A. M., & Chen, Z. X., et al. (2001). Culture and procedural justice: The influence of power distance on reactions to voice. *Journal of Experimental Social Psychology, 37*, 300–315.
- Brockner, J., & Wiesenfeld, B. M. (1996). An integrative framework for explaining reactions to decisions: Interactive effects of outcomes and procedures. *Psychological Bulletin, 120*, 189–208.
- Cropanzano, R., Byrne, Z. S., Bobocel, D. R., & Rupp, D. E. (2001). Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *Journal of Vocational Behavior, 58*, 164–209.
- Cropanzano, R., & Greenberg, J. (1997). Progress in organizational justice: Tunneling through the maze. In C. L. Cooper, & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 317–372). New York: Wiley.
- Folger, R. (1977). Distributive and procedural justice: Combined impact of 'voice' and improvement on experienced inequity. *Journal of Personality and Social Psychology, 35*, 108–119.
- Folger, R. (1984). Emerging issues in the social psychology of justice. In R. Folger (Ed.), *The sense of injustice: Social psychological perspectives* (pp. 3–24). New York: Plenum.
- Folger, R., & Cropanzano, R. (1998). *Organizational justice and human resource management*. Thousand Oaks, CA: Sage.
- Folger, R., & Cropanzano, R. (2001). Fairness theory: justice as accountability. In R. Cropanzano, & J. Greenberg (Eds.), *Advances in organizational justice* (pp. 1–55). Stanford, CA: Stanford University Press.
- Folger, R., Rosenfield, D., Grove, J., & Corkran, L. (1979). Effects of 'voice' and peer opinions on responses to inequity. *Journal of Personality and Social Psychology, 37*, 2253–2261.

- Houlden, P., LaTour, S., Walker, L., & Thibaut, J. (1978). Preference for modes of dispute resolution as a function of process and decision control. *Journal of Experimental Social Psychology, 14*, 13–30.
- Lind, E. A., Kanfer, R., & Earley, P. C. (1990). Voice, control, and procedural justice: Instrumental and noninstrumental concerns in fairness judgments. *Journal of Personality and Social Psychology, 59*, 952–959.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum.
- Platow, M., Filardo, F., Troselj, L., Grace, D. M., & Ryan, M. K. (2006). Non-instrumental voice and extra-role behaviour. *European Journal of Social Psychology, 36*, 135–146.
- Rusbult, C. E., & Van Lange, P. A. M. (1996). Interdependence processes. In E. T. Higgins, & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 564–596). New York: Guilford Press.
- Smith, H. J., & Tyler, T. R. (1996). Justice and power: When will justice concerns encourage the advantaged to support policies which redistribute economic resources and the disadvantaged to willingly obey the law? *European Journal of Social Psychology, 26*, 171–200.
- Smith, H. J., & Tyler, T. R. (1997). Choosing the right pond: The impact of group membership on self-esteem and group-oriented behavior. *Journal of Experimental Social Psychology, 33*, 146–170.
- Smith, H. J., Tyler, T. R., Huo, Y. J., Ortiz, D. J., & Lind, E. A. (1998). The self-relevant implications of the group-value model: Group-membership, self-worth and treatment quality. *Journal of Experimental Social Psychology, 34*, 470–493.
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Erlbaum.
- Tyler, T. R. (1987). Conditions leading to value expressive effects in judgments of procedural justice: A test of four models. *Journal of Personality and Social Psychology, 52*, 333–344.
- Tyler, T. R., & Blader, S. L. (2003). The group engagement model: Procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review, 7*, 349–361.
- Tyler, T. R., & Lind, E. A. (1992). A relational model of authority in groups. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 115–292). San Diego, CA: Academic Press.
- Tyler, T. R., Lind, E. A., & Huo, Y. J. (2000). Cultural values and authority relations: The psychology of conflict resolution across cultures. *Psychology, Public Policy, and Law, 6*, 1138–1163.
- Van den Bos, K. (1999). What are we talking about when we talk about no-voice procedures? On the psychology of the fair outcome effect. *Journal of Experimental Social Psychology, 35*, 560–577.
- Van den Bos, K. (2001). Uncertainty management: The influence of human uncertainty on reactions to perceived fairness. *Journal of Personality and Social Psychology, 80*, 931–941.
- Van den Bos, K., & Lind, E. A. (2001). The psychology of own versus others' treatment: Self-oriented and other-oriented effects on perceptions of procedural justice. *Personality and Social Psychology Bulletin, 27*, 1324–1333.
- Van den Bos, K., & Lind, E. A. (2002). Uncertainty management by means of fairness judgments. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 34, pp. 1–60). San Diego, CA: Academic Press.
- Van den Bos, K., & Van Prooijen, J.-W. (2001). Referent cognitions theory: The psychology of voice depends on closeness of reference points. *Journal of Personality and Social Psychology, 81*, 616–626.
- Van den Bos, K., Wilke, H. A. M., & Lind, E. A. (1998). When do we need procedural fairness? The role of trust in authority. *Journal of Personality and Social Psychology, 75*, 1449–1458.
- Van den Bos, K., Wilke, H. A. M., Lind, E. A., & Vermunt, R. (1998). Evaluating outcomes by means of the fair process effect: Evidence for different processes in fairness and satisfaction judgments. *Journal of Personality and Social Psychology, 74*, 1493–1503.
- Van Prooijen, J.-W., Karremans, J. C., & Van Beest, I. (2006). Procedural justice and the hedonic principle: How approach versus avoidance motivation influences the psychology of voice. *Journal of Personality and Social Psychology, 91*, 686–697.
- Van Prooijen, J.-W., Van den Bos, K., & Wilke, H. A. M. (2002). Procedural justice and status: Status salience as antecedent of procedural fairness effects. *Journal of Personality and Social Psychology, 83*, 1353–1361.
- Van Prooijen, J.-W., Van den Bos, K., & Wilke, H. A. M. (2004). Group belongingness and procedural justice: Social inclusion and exclusion by peers affects the psychology of voice. *Journal of Personality and Social Psychology, 87*, 66–79.
- Van Prooijen, J.-W., Van den Bos, K., & Wilke, H. A. M. (2005). Procedural justice and intragroup status: Knowing where we stand in a group enhances reactions to procedures. *Journal of Experimental Social Psychology, 41*, 664–676.