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What Are We Talking about When We Talk about No-Voice Procedures? On the Psychology of the Fair Outcome Effect

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The most generally accepted and best documented manipulation in procedural justice experiments is varying whether participants are allowed an opportunity to voice their opinion about a decision. In the present article, a distinction is made between two types of no-voice procedures—those in which a person is not informed about possible voice opportunities and hence implicitly is not allowed a voice (implicit no-voice procedure) and those in which a person is explicitly told that he or she does not have voice opportunities (explicit no-voice procedure). I focus on the effect perceived outcome fairness may have on judgments of procedural fairness (fair outcome effect). On the basis of fairness heuristic theory, I argue that when information about procedure is not available (as in the case of implicit no-voice procedures), people may find it difficult to decide how they should judge the procedure, and they therefore use the fairness of their outcome to assess how to respond to the procedure. As a result, the procedural judgments of these people show strong fair outcome effects. However, persons who are explicitly denied voice do have explicit information about procedure and hence have to rely less on outcome information, yielding weaker fair outcome effects on procedural judgments. Findings of two experiments provide supportive evidence for this line of reasoning. Implications for our understanding of the psychology of social justice in general and the fair outcome effect in particular are discussed.

Key Words: procedures; outcomes; justice.

Philosophers, sociologists, political scientists, psychologists, legal scholars, economists, and other scientists have paid a considerable amount of attention to the issue of social justice (see, e.g., Cohen, 1986, for an overview). Many of these men and women have argued that social justice is a key issue in our lives. Social

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psychologists have proposed a number of theories that deal with people's concerns about justice. An important conception of justice is formulated in equity theory (e.g., Adams, 1965; Walster, Berscheid, & Walster, 1973; Walster, Walster, & Berscheid, 1978), which argues that people judge an outcome as fair when the ratio of their own inputs and outputs equals the ratio of inputs and outputs of comparison others. Equity theory and other related conceptions of justice (e.g., Blau, 1964; Deutsch, 1975; Homans, 1961; Stouffer, Suchman, DeVinney, Star, & Williams, 1949) are commonly referred to as theories of distributive justice since they focus on the fairness of outcomes that people receive.

Another conception of justice emerged from the pioneering research of Thibaut, Walker, and their colleagues (LaTour, 1978; Thibaut & Walker, 1975, 1978; Walker, LaTour, Lind, & Thibaut, 1974; Walker, Lind, & Thibaut, 1979). They argued that the outcome of a court trial and the manner in which the trial is conducted form two separable aspects of legal settings that can affect litigants' fairness judgments. The research by Thibaut and Walker *cum suis* showed that social justice concerns indeed include questions about the fairness of procedures as well as questions about the fairness of outcomes.

The procedure that Thibaut and Walker (1975) focused on was whether the procedure allowed people (some) control over the process. In the pioneering research by Folger (1977), the focus shifted from the concept of process control toward investigating whether people have an opportunity to voice their opinion in the decision-making process. Following Folger's research (e.g., Folger, 1977; Folger, Rosenfield, Grove, & Corkran, 1979), experiments on procedural justice have frequently manipulated whether participants are or are not allowed a voice, and it can be concluded that in the procedural justice domain this is now the most generally accepted manipulation of procedure (see, e.g., Lind, Kanfer, & Earley, 1990; Lind & Tyler, 1988; Tyler, 1987; Tyler & Lind, 1992; Tyler, Rasinski, & Spodick, 1985; Van den Bos, Vermunt, & Wilke, 1996; Van den Bos, Lind, Vermunt, & Wilke, 1997).

An important aim of the current article is to make a distinction between two types of no-voice procedures which exist in everyday life and which have been used in previous experiments. One type of no-voice procedure has been used in studies by Folger (1997) and Lind et al. (1990). In both these experiments, only participants who were given voice were informed about a possibility that participants could get an opportunity to voice their opinion about an important decision the experimenter was going to make, and after this they were informed that they got such an opportunity. Participants in the no-voice condition were not informed about the possible voice opportunities and hence implicitly were not allowed a voice. I label this an implicit no-voice procedure. In my own research thus far I have used a different type of no-voice procedure (see Van den Bos, Lind, et al., 1997; Van den Bos et al., 1996; Van den Bos, Wilke, & Lind, 1998; Van den Bos, Wilke, Lind, & Vermunt, 1998; see also Brockner et al., 1998, Study 5; Hunton, Hall, & Price, 1998): In both the voice and the no-voice conditions, participants were informed that there was a possibility that participants could get

an opportunity to voice their opinion about a decision the experimenter was going to make. Participants in the voice conditions were told that they would get voice, whereas participants in the no-voice conditions were informed that they would not get an opportunity to voice their opinion. I call this latter procedure an explicit no-voice procedure.

According to my knowledge, previous research has not made a distinction between implicit and explicit no-voice, and in previous articles (including my own papers) these two types of no-voice procedures have been treated as if they were one and the same thing. I would like to show here, however, that making this distinction is not only methodologically important but that it also may help to further our insights about important phenomena in the social justice domain. I try to illustrate this by focusing on the positive effect that judged outcome fairness may have on perceptions of procedural fairness. This instance of the fair outcome effect is the mechanism I use to show that there are important psychological implications of making a distinction between explicit and implicit no-voice conditions.

One of the reasons why it may be interesting to study the psychology of the fair outcome effect is that the reverse effect (i.e., the effect of procedural fairness on outcome judgments) has been found far more frequently than fair outcome effects (see Lind & Tyler, 1988, and Walker et al., 1979, for overviews). For example, in the introduction of their 1979 paper, Walker et al. noted that there might be three possible relationships between procedural and distributive justice: First, perceived procedural fairness may affect perceptions of distributive fairness. Second, perceived distributive fairness may influence procedural fairness perceptions. Third, procedural and distributive fairness perceptions may be unrelated. The authors concluded from the results reported in their article that—depending on the manipulations in their experiments (see Walker et al., 1979, for details)—there is evidence for the first possibility (a fair process effect on distributive fairness judgments) and the third possibility (no relationship). However, in their experiments there was no evidence for the second possibility (a fair outcome effect on procedural fairness judgments). This led Walker et al. (1979) to conclude that ''at least with respect to perceptions, 'ends' (distributive justice) cannot justify 'means' (procedural justice)'' (p. 1416). In the current article, I argue that this conclusion has been premature and that more precise stimulus materials may produce statistically significant fair outcome effects.

The fact that fair outcome effects have been found less frequently than fair process effects is one of the most important factors that has led some procedural justice researchers to conclude that the formation of overall justice judgments is more strongly affected by procedures than by outcomes (see, e.g., Lind & Tyler, 1988, p. 1). As a result of this, procedural justice research nowadays tends to focus on one aspect of the cognitive process leading to fairness and other judgments: procedures. Distributive justice researchers, on the other hand, also tend to focus on one aspect of the fairness judgment process: outcomes (see, e.g., Lerner & Whitehead, 1980; Rutte & Messick, 1995). Thus, both procedural and distributive

justice research tend to pay attention to only one aspect of the fairness judgment process at the expense of other important concepts. One purpose of the present article is to develop the integration of the procedural and distributive justice domains by trying to further our understanding of the psychology of the fair outcome effect. I base my line of reasoning on fairness heuristic theory. Fairness heuristic theory has been explicitly designed to provide a deeper understanding of procedural and distributive justice issues, and I hope that—together with other important developments (e.g., Brockner & Wiesenfeld, 1996; Cropanzano & Folger, 1991; Daly & Tripp, 1996; Folger, 1986, 1996; Greenberg, 1990; Lind & Tyler, 1988; Sweeney & McFarlin, 1993; Tyler, 1996; Tyler & Lind, 1992)—the theory might provide a point of departure for integrating the two research domains. Below I introduce fairness heuristic theory and derive conditions in which fair outcome effects are predicted to be more versus less likely.

FAIRNESS HEURISTIC THEORY

Fairness heuristic theory makes a number of novel predictions about the psychology of procedural and distributive justice (for overviews, see, e.g., Lind, in press; Lind, Kulik, Ambrose, & De Vera Park, 1993; Van den Bos et al., 1997; Van den Bos, Lind, & Wilke, in press; Van den Bos, Vermunt, & Wilke, 1997; Van den Bos, Wilke, & Lind, 1998; Van den Bos, Wilke, Lind, & Vermunt, 1998). One of the most important contributions of fairness heuristic theory is that it makes clear that in order to explain how people form fairness judgments we have to know what information is (vs is not) available to people (Van den Bos, Lind, & Wilke, in press). Previous fairness heuristic studies have shown that this simple point can have far-reaching implications for our understanding of important issues in the procedural and distributive justice domain (e.g., Van den Bos, Lind, et al., 1997; Van den Bos, Vermunt, & Wilke, 1997). In the present article, I argue that this point suggests that when we want to understand the effect perceived outcome fairness might have on procedural fairness judgments, we have to understand what information people have when forming judgments about procedure. Furthermore, I suggest that when trying to answer this significant question it is important to make a distinction between explicit and implicit no-voice procedures.

How do people form procedural judgments in the case of implicit no-voice procedures; that is, when they do *not* have direct, explicit information about procedure? On the basis of an important proposition of fairness heuristic theory—commonly referred to as the substitutability proposition (Van den Bos, Wilke, Lind, & Vermunt, 1998)—it can be argued that in situations in which information about procedure is missing people refer to other information to decide how to judge their procedure. More specifically, it is proposed here that in such situations people may use outcome information in the process of deciding how to judge procedure. In other words, in situations in which definitive procedure information is lacking, outcome fairness may serve as a heuristic substitute in the process of forming procedural judgments. As a consequence, I expect a fair outcome effect

when people implicitly have not received voice: People will judge their procedure as more fair and as more satisfying when they received a fair as opposed to an unfair outcome.

On the other hand, this line of thought also suggests that when people do have direct, explicit information about procedure—such as when they explicitly have been denied a voice opportunity or when they got voice—they may be less in need of outcome fairness as a heuristic substitute. I therefore expect that in implicit no-voice situations, procedural judgments will differ more as a function of whether people received a fair outcome as opposed to an unfair outcome than they will in explicit no-voice or voice situations (Hypothesis 1).

Thus, following an important—if not the most important—element of fairness heuristic theory, it has been argued that when people do not get voice and do not have direct information about procedure, they will rely more on outcome fairness information when forming procedure judgments compared to people who do have direct information about procedure; that is, people who explicitly did or did not get voice. It should be noted here, however, that a diverse body of research suggests that negative information is more likely to initiate sense-making or information-seeking activity than more positive information (see, e.g., Brockner & Wiesenfeld, 1996; Cohen, 1982; Lind & Lissak, 1985; Peeters & Czapinski, 1990; Petty & Cacioppo, 1990; Utne & Kidd, 1985; Van den Bos, Vermunt, & Wilke, 1997; Weiner, 1985). Furthermore, it has been suggested that negative procedures are more likely to trigger cognitive analysis than more positive procedures and hence that people who are faced with negative procedures will use subsequent outcome information more as a source than will persons who have experienced more positive procedures (Lind & Lissak, 1985; Van den Bos, Vermunt, & Wilke, 1997). Moreover, it can be argued that an explicit no-voice procedure is a more negative event and hence is more likely to trigger cognitive analysis than a desirable procedure such as voice or an inconspicuous procedure such as implicit no-voice. This suggests that people who find themselves subject to an explicit no-voice procedure will use the outcome more as a source of information than people who find themselves subject to a voice procedure or an implicit no-voice procedure. Therefore, as an alternative, one could hypothesize that perceived outcome fairness will affect people's procedural judgments more strongly when the procedure has explicitly denied them a voice opportunity than when they got voice or when they implicitly did not get voice (Hypothesis 1_{alt}).

EXPERIMENT 1

As a first test of my predictions, participants in Experiment 1 read and responded to stimulus information manipulated by means of scenarios. The manipulation of procedure consisted of three levels. Following previous voice research (e.g., Folger, 1977; Lind et al., 1990; Van den Bos, Lind, et al., 1997), participants in the voice condition were told that they would be allowed an opportunity to voice their opinion. Following previous fairness heuristic research (Van den Bos, Lind, et al., 1997; Van den Bos, Wilke, Lind, & Vermunt, 1998; Van

den Bos, Wilke, & Lind, 1998), participants in the explicit no-voice condition were told that they would not be allowed an opportunity to voice their opinion. In correspondence with the studies by Folger (1977) and Lind et al. (1990), participants in the implicit no-voice condition did not receive explicit information about procedure and hence were implicitly not allowed an opportunity to voice their opinion. The outcome that participants received was held constant across conditions and was manipulated so that the outcome was equal to the outcome of another person (equal-to-other condition) or worse than that of the other person (worse-than-other condition). Participants' procedural fairness judgments and their procedural satisfaction judgments were the dependent variables.

Method

Participants and design. One hundred and twenty students (42 men and 78 women) at Leiden University participated in the experiment and were paid for their participation. Participants were randomly assigned to one of the conditions of the 2 (outcome: equal-to-other vs worse-than-other) $\times$ 3 (procedure: implicit no-voice vs explicit no-voice vs voice) factorial design. The design was balanced with 20 participants assigned to each of the 6 conditions.

Experimental procedure. Participants read the scenario and answered the questions that constituted the dependent variables after participating in two other, unrelated experiments. The experiments lasted a total of 1 h, and participants were paid 10 Dutch guilders (1 Dutch guilder $\approx$ U.S. $0.50). On arrival at the laboratory, participants were led to separate cubicles, each of which contained a computer with a monitor and a keyboard. The computers were used to present the stimulus information and to measure the dependent variables.

First, participants were asked to imagine the following situation:

> Last summer you had a job together with a fellow student. The two of you worked together in a pair. There were a large number of such pairs in the organization where you worked. You and your fellow student have worked equally hard and performed equally well. Because the organization has performed well last summer, it is announced on the last day of summer that a bonus of 10,000 Dutch guilders will be distributed among all employees. A certain amount of money has been allocated to you and your fellow student. Your supervisor has to decide how this amount of money will be distributed between you and your fellow student.

This was followed by the manipulation of procedure. Participants in the voice and explicit no-voice conditions read the following two sentences (manipulated information in italics):

> Your supervisor gives you *voice/no voice:* You *may give/may not give* your opinion about how the money should be distributed between you and your fellow student.

These two sentences were not presented to participants in the implicit no-voice condition (and hence participants implicitly received no opportunity to voice their

opinion). After this, outcome was manipulated: Participants read the following sentences (manipulated information in italics):

> A week after this employees are paid. You receive a bonus of 250 Dutch guilders. Your fellow student receives a bonus of *250/500* Dutch guilders.

After participants had read the scenario, they were asked questions pertaining to the dependent variables. Both ratings were made on 7-point Likert-type scales. Procedural fairness judgments were solicited by asking participants how fair they considered the procedure used to assess the bonuses they and their fellow student received (1 = very unfair, 7 = very fair). Procedural satisfaction was assessed by asking participants how satisfied they were with the procedure used to assess the bonuses they and their fellow student received (1 = very dissatisfied, 7 = very satisfied).

Results

The means of the procedural judgments in Experiment 1 are presented in Table 1. A 2 (outcome) × 3 (procedure) multivariate analysis of variance (MANOVA) on the procedural judgments showed main effects of procedure at both the multivariate level and the univariate levels: multivariate $F(4, 226) = 39.46$, $p < .001$; for procedural fairness, $F(2, 114) = 67.58$, $p < .001$; and for procedural satisfaction, $F(2, 114) = 101.13$, $p < .001$. To interpret these effects of procedure, I performed a Student–Newman–Keuls (SNK) test for multiple comparisons between means ($p < .05$) for each procedural judgment, with procedure (implicit no-voice vs explicit no-voice vs voice) serving as the independent variable. These analyses revealed that with respect to both perceived procedural fairness and procedural satisfaction the three procedure conditions differed significantly from each other. Procedural fairness and satisfaction perceptions were the most positive in the voice condition ($M = 5.8$ and $M = 5.9$, respectively), moderately positive in the implicit no-voice condition ($M = 4.1$ and $M = 4.0$, respectively), and the

TABLE 1
Mean Procedure Judgments as a Function of Outcome and Procedure (Experiment 1)

		Procedure		
Dependent variable	Outcome	Implicit no-voice	Explicit no-voice	Voice
Procedural fairness	Equal-to-other	6.8_a	3.8_c	6.1_b
	Worse-than-other	1.3_e	2.0_d	5.5_b
Procedural satisfaction	Equal-to-other	6.8_a	3.4_c	6.0_b
	Worse-than-other	1.2_d	1.8_d	5.7_b

Note. Entries are means on 7-point Likert-type scales; higher values indicate more positive ratings of the dependent variable in question. For each dependent variable, means with no subscripts in common differ significantly, as indicated by a Student–Newman–Keuls test for multiple comparisons between means ($p < .05$).

least positive in the explicit no-voice condition ($M = 2.9$ and $M = 2.6$, respectively).

The MANOVA also indicated main effects of outcome at both the multivariate level and the univariate levels: multivariate $F(2, 113) = 103.88$, $p < .001$; for procedural fairness, $F(1, 114) = 168.40$, $p < .001$; and for procedural satisfaction, $F(1, 114) = 173.23$, $p < .001$. Inspection of the means indicated that participants who received an outcome that was equal to the other stimulus person judged the procedure to be more fair ($M = 5.6$) and were more satisfied with the procedure ($M = 5.4$) than those who received an outcome that was worse than the outcome of the other person ($M = 2.9$ and $M = 2.9$, respectively).

More important, however, the MANOVA results also revealed that the above-mentioned main effects were qualified by significant interactions between outcome and procedure at the multivariate and univariate levels: multivariate $F(4, 226) = 30.54$, $p < .001$; for procedural fairness, $F(2, 114) = 52.31$, $p < .001$; and for procedural satisfaction, $F(2, 114) = 72.48$, $p < .001$. To interpret these interaction effects, I performed for each procedural judgment a SNK test for multiple comparisons between means ($p < .05$), with the six cells of my design serving as the independent variable. The subscripts that are presented with the means in Table 1 show the results of these analyses. The SNK tests revealed that outcome (equal-to-other vs worse-than-other) affected procedural judgments (both fairness and satisfaction) more strongly in the implicit no-voice condition than in the explicit no-voice and the voice conditions. More specifically, in the voice condition, outcome had no significant effect on procedural judgments. In the explicit no-voice condition, outcome had a significant, albeit small, effect. In the implicit no-voice condition, outcome strongly affected procedural judgments. The SNK findings also showed that the outcome effect was greater in the implicit no-voice condition than in the explicit no-voice and the voice conditions.

These results indicate—as predicted by Hypothesis 1 and in contrast with Hypothesis 1_{alt}—that outcome affected participants' procedural judgments (both fairness and satisfaction) more strongly in the implicit no-voice condition than in the explicit no-voice and voice conditions. As a final test of Hypothesis 1, I tested the interaction contrast that was relevant to this hypothesis. Note that my predictions were that outcome would affect judged fairness and satisfaction more when participants implicitly received no opportunity to voice their opinion than when they had been explicitly informed that they would or would not receive a voice. In other words, I predicted an interaction between outcome (equal-to-other vs worse-than-other) and a ''procedural explicitness contrast'' that contrasted the implicit no-voice condition with the explicit no-voice and voice conditions. I therefore tested these predictions by analyzing this interaction contrast in a 2×3 MANOVA. This analysis showed main effects of outcome (as indicated above with the overall analysis). More important, however, these effects were qualified by the predicted interactions between outcome and the procedural explicitness contrast (implicit no-voice vs voice/explicit no-voice): multivariate $F(2, 113) = 73.07$, $p < .001$; for procedural fairness, $F(1, 114) = 98.72$, $p < .001$; and for

procedural satisfaction, $F(1, 114) = 136.43$, $p < .001$. These interactions yielded further evidence for Hypothesis 1.

Discussion

The findings of Experiment 1 provide strong support for the line of reasoning presented in the introduction: When people implicitly do not get voice they do not have direct, explicit information about procedure, and hence they may find it difficult to assess whether their procedure is fair or unfair and satisfying or unsatisfying, and they therefore use the fairness of the outcome to assess how to respond to their procedure. As a result, the procedural judgments of these people show strong fair outcome effects. However, persons who explicitly received no voice or did get voice have received information about procedure and hence have to rely less on outcome information, yielding less strong fair outcome effects on the procedural judgments of these persons.

Before strong conclusions are drawn on the basis of these findings, however, it is important to replicate them in a second experiment. In Experiment 1, participants read a scenario and responded to this hypothetical situation. One might wonder whether similar results would be obtained when participants were exposed to a situation in which they directly experience the fairness and satisfaction of a procedure and outcome. As a second test of my predictions, therefore, the same independent variables were manipulated in such an experiment. Furthermore, equity theory and other distributive theories emphasize the importance of social comparison information in the process of evaluating outcomes (Messick & Sentis, 1983; Van den Bos, Lind, et al., 1997). We can ask ourselves whether participants in Experiment 1 really compared themselves with the other person (about whom they had no further information than that this hypothetical person was a fellow student). In order to establish that participants in Experiment 2 would compare themselves with the other person, I tried to make the other person comparable to the participants.

EXPERIMENT 2

Method

Participants and design. One hundred and twenty students (36 men and 84 women) at Leiden University participated in the experiment and were paid for their participation. Participants were randomly assigned to one of the conditions of the 2 (outcome: equal-to-other vs worse-than-other) $\times$ 3 (procedure: implicit no-voice vs explicit no-voice vs voice) factorial design. The design was balanced with 20 participants assigned to each of the 6 conditions.

Experimental procedure. Participants were invited to the laboratory to participate in a study on how people perform tasks. On arrival at the laboratory, participants were led to separate cubicles, each of which contained a computer with a monitor and a keyboard. Next to the monitor, participants found a piece of paper and a pencil. Participants were told that the computers were connected to one another and that the experimenter could communicate with them by means of

the computer network. The computers were used to present the stimulus information and to collect data on the dependent variables and the manipulation checks. Participants participated in the experiment before participating in another, unrelated experiment. The experiments lasted a total of 1 h, and participants were paid 10 Dutch guilders.

In the first part of the instructions, participants were informed that they participated in the experiment with another person, referred to as Other. The experimental procedure was then outlined to the participants: After the experimental tasks were explained, participants would practice the tasks for 2 min, after which time they would work on the tasks for 10 min. Furthermore, participants were informed that, after all participants were run, a lottery would be held among all participants. The winner of this lottery would receive 100 Dutch guilders. (Actually, after all participants had completed the experiment, the 100 Dutch guilders were randomly given to one participant; a procedure to which none of the participants objected upon debriefing). 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 the experimenter would divide some lottery tickets between them and Other. Six practice questions were posed to ensure comprehension of the lottery. If participants gave a wrong answer to a question, the correct answer was disclosed and main characteristics of the lottery were repeated.

The task was then explained to the participants. Figures would be presented on the upper right part of the computer screen. Each figure consisted of 36 squares, and each square showed one of eight distinct patterns. On the upper left side of the computer screen one of the eight patterns would be presented, and participants had to count the number of squares with this pattern in the figure on the right side of the screen. When participants had indicated the correct number of patterns in the figure on the right side of the screen, another figure and another pattern would be presented on the screen. In both the practice round and the work round, the number of tasks that the participant had completed (i.e., the number of figures that the participant had counted) in the present round would be presented on the lower right side of the screen. On the lower left side of the screen the time remaining in the present round was shown.

The practice round then began, after which the work round began. After the work round had ended, participants were told how many tasks they had completed in the work round, and—in order to try to ensure that participants compared themselves to Other—it was communicated to the participant that Other had completed an equivalent number of tasks. Participants were then told that the experimenter would divide the lottery tickets between them and Other. After this, participants were asked to think for 1 min about the percentage of lottery tickets that they should receive relative to Other and to write down this percentage on the piece of paper next to the computer. Participants were informed that at the end of the experiment the pieces of paper would be thrown way.

The procedure that participants received was then manipulated. Participants in

the voice and explicit no-voice conditions were informed about an opportunity to voice their opinion: In the voice condition, the experimenter allegedly asked participants, by means of the computer network, to type in their opinion about the percentage of tickets that they should receive relative to Other. (In reality, however, all stimulus information was preprogrammed.) Participants in the explicit no-voice condition were informed that they would not be asked to type their opinion about the percentage of tickets that they should receive relative to Other. In the implicit no-voice condition, participants did not receive this information about voice or no voice (and hence implicitly received no voice opportunity).

It was then communicated to the participants that they received three lottery tickets. After this, participants in the equal-to-other condition were informed that Other received three tickets. In the worse-than-other condition, participants were informed that Other received five tickets.

Participants were then asked questions pertaining to the dependent variables and the manipulation checks. All ratings were made on 7-point Likert-type scales. Two procedural judgments were measured: Procedural fairness judgments were solicited by asking participants how fair they considered the procedure used to assess the distribution of tickets between them and Other (1 = very unfair, 7 = very fair). Procedural satisfaction was assessed by asking participants how satisfied they were with the procedure used to assess the distribution of tickets between them and Other (1 = very dissatisfied, 7 = very satisfied). As a check on the manipulation of procedure, participants were asked to what extent they agreed with the statement that they had received an opportunity to voice their opinion (1 = strongly disagree, 7 = strongly agree), to what extent they agreed with the statement that they had not received an opportunity to voice their opinion (1 = strongly disagree, 7 = strongly agree), and to what extent they agreed with the statement that they had not been informed about whether they would receive an opportunity to voice their opinion (1 = strongly disagree, 7 = strongly agree). As a check on whether participants perceived the manipulation of outcome as intended, two outcome judgments were assessed: Outcome fairness judgments were measured by asking participants how fair they considered the distribution of tickets between them and Other (1 = very unfair, 7 = very fair). Outcome satisfaction was solicited by asking participants how satisfied they were with the distribution of tickets between them and Other (1 = very dissatisfied, 7 = very satisfied). To assess whether participants thought of Other as a person who was comparable in the amounts of inputs he or she provided, they were asked to what extent Other did his or her best in the work round relative to the participant (1 = much worse, 4 = equally, 7 = much better) and to what extent Other was good at performing the tasks in the work round relative to the participant (1 = much worse, 4 = equally, 7 = much better). When the participants had answered these questions and had completed the other experiments in which they would participate, they were thoroughly debriefed and paid for their participation.

Results

Comparability measures. The answers that participants gave on the questions that assessed whether participants thought the other participants comparable were subjected to a 2 × 3 MANOVA. This MANOVA did not yield significant results at either the multivariate or the univariate levels. Inspection of the means indicated that participants thought that the other participant was equal to them in doing his or her best in the work round ($M = 4.0$) and was equally good in performing the tasks ($M = 4.0$). This suggests that the participants thought the other persons comparable in the amount of inputs he or she provided.

Percentage findings. A 2 × 3 analysis of variance (ANOVA) was performed on the percentages of lottery tickets that participants believed they should get relative to the other participant and which they wrote down on the pieces of paper. This ANOVA yielded no significant effects. One hundred and seventeen (of 120) participants indicated that they should get 50% of the tickets. The grand mean percentage was 50.5%.

Participants who were allowed voice ($n = 40$) also typed in their opinion about the percentage tickets that they should receive relative to the other participant. An ANOVA indicated that independent of the outcome that participants received, participants typed in that the lottery tickets should be divided equally between themselves and the other participant: Thirty-eight of the participants answered that they should get 50% of the tickets, and the mean percentage was 50.3%. Thus, these findings are supportive of equity theory: Participants preferred to divide outcomes equally between themselves and the other participant (who contributed an equal amount of inputs and who hence deserved—according to equity theory—to receive the same amount of outputs as the participants themselves).

Procedure manipulation checks. A 2 × 3 MANOVA on the manipulation checks of procedure showed only main effects of procedure at the multivariate and univariate levels: multivariate $F(6, 224) = 67.35$, $p < .001$; for the voice check, $F(2, 114) = 67.83$, $p < .001$; for the explicit no-voice check, $F(2, 114) = 42.14$, $p < .001$; and for the implicit no-voice check, $F(2, 114) = 137.21$, $p < .001$. For each manipulation check, I subsequently performed an SNK test for multiple comparisons between means ($p < .05$). With respect to the voice check this revealed only two homogeneous subsets of conditions: Participants in the voice conditions agreed more with the statement that they had received an opportunity to voice their opinion ($M = 6.2$) than did participants in the two other procedure conditions combined ($M = 2.3$). There were also only two homogeneous subsets with respect to the explicit no-voice check: Participants in the explicit no-voice conditions agreed more with the statement that they had *not* received an opportunity to voice their opinion ($M = 5.5$) than did participants in the other two procedure conditions combined ($M = 2.4$). Finally, there were also two subsets with the implicit no-voice check: Participants in the implicit no-voice conditions agreed more with the statement that they had *not* been informed about whether they would receive an opportunity to voice their opinion ($M = 5.8$) than

TABLE 2
Mean Procedure Judgments as a Function of Outcome and Procedure (Experiment 2)

Dependent variable	Outcome	Procedure		
		Implicit no-voice	Explicit no-voice	Voice
Procedural fairness	Equal-to-other	6.0_a	3.6_b	5.6_a
	Worse-than-other	2.3_c	$2.8_{b,c}$	4.9_a
Procedural satisfaction	Equal-to-other	5.9_a	3.6_c	$5.3_{a,b}$
	Worse-than-other	2.3_d	$2.8_{c,d}$	4.6_b

Note. Entries are means on 7-point Likert-type scales; higher values indicate more positive ratings of the dependent variable in question. For each dependent variable, means with no subscripts in common differ significantly, as indicated by a Student–Newman–Keuls test for multiple comparisons between means ($p < .05$).

did participants in the other two procedure conditions combined ($M = 1.5$). It can be concluded that the procedure manipulation was successfully operationalized.

Outcome judgments. A 2 × 3 MANOVA on the two outcome judgments (fairness and satisfaction) showed only main effects of outcome at the multivariate and univariate levels: multivariate $F(2, 113) = 181.88$, $p < .001$; for outcome fairness judgments, $F(1, 114) = 361.46$, $p < .001$; and for outcome satisfaction judgments, $F(1, 114) = 121.31$, $p < .001$. As was expected, participants who received an outcome that was equal to the other participant judged the distribution of outcomes as more fair ($M = 6.3$) and as more satisfying ($M = 5.7$) than did participants who received an outcome that was worse than the other's outcome ($M = 2.3$ and $M = 2.5$, respectively). It can be concluded that the outcome manipulation was successfully operationalized.

Procedure judgments. The means of the procedure judgments in Experiment 2 are presented in Table 2. To analyze these data I performed the same analyses as in Experiment 1. A 2 × 3 MANOVA yielded main effects of procedure: multivariate $F(4, 226) = 9.70$, $p < .001$; for procedural fairness, $F(2, 114) = 19.66$, $p < .001$; and for procedural satisfaction, $F(2, 114) = 13.67$, $p < .001$. In order to understand these effects, I conducted an SNK test for multiple comparisons between means ($p < .05$) for each procedural judgment with procedure serving as the independent variable. This showed that for both procedural fairness and satisfaction perceptions the three procedure conditions differed significantly from each other. Perceptions of procedural fairness and satisfaction were the most positive when participants had received voice ($M = 5.3$ and $M = 5.0$, respectively), moderately positive when participants implicitly had received no voice ($M = 4.2$ and $M = 4.1$, respectively), and the least positive when participants explicitly had received no voice ($M = 3.2$ and $M = 3.2$, respectively).

The MANOVA also indicated main effects of outcome: multivariate $F(2, 113) = 24.20$, $p < .001$; for procedural fairness, $F(1, 114) = 41.05$, $p < .001$; for procedural satisfaction, $F(1, 114) = 37.62$, $p < .001$. Participants who received an outcome that was equal to Other's outcome judged the procedure to be more

fair ($M = 5.1$) and were more satisfied with the procedure ($M = 4.9$) than participants who received an outcome that was worse than Other's outcome ($M = 3.3$ and $M = 3.2$, respectively).

More important, these effects were qualified by significant outcome × procedure interactions at the multivariate and univariate levels: multivariate $F(4, 226) = 7.21$, $p < .001$; for procedural fairness, $F(2, 114) = 12.57$, $p < .001$; and for procedural satisfaction, $F(2, 114) = 12.38$, $p < .001$. To interpret these effects, I performed an SNK test for multiple comparisons between means ($p < .05$) for each procedural judgment, with the six cells of the design serving as the independent variable. Table 2 shows the results of these tests. The findings indicated, as predicted by Hypothesis 1 and in contrast with Hypothesis 1_{alt}, that outcome affected both procedural fairness and satisfaction perceptions more strongly in the implicit no-voice condition than in the explicit no-voice and voice conditions. More specifically, when participants had received voice their procedural judgments were not significantly affected by variations in outcome. Similarly, when participants explicitly had received no voice opportunity, outcome had no significant effect on procedural judgments. However, when participants implicitly had not received voice, outcome strongly affected procedural judgments. In correspondence with Experiment 1, the SNK tests revealed that the outcome effect was greater in the implicit no-voice condition than in the explicit no-voice and voice conditions. The results of Experiment 2 are even more convincing than those of Experiment 1 because in Experiment 2 both the explicit no-voice and voice conditions did not show significant outcome effects.

Finally, I tested whether the interaction between outcome (equal-to-other vs worse-than-other) and the procedural explicitness contrast (implicit-no-voice vs voice/explicit no-voice) was significant. This contrast analysis showed main effects of outcome (as indicated above with the overall analysis). More interesting, however, these effects were qualified by the predicted interactions between outcome and the procedural explicitness contrast (implicit no-voice vs voice/explicit no-voice): multivariate $F(2, 113) = 15.31$, $p < .001$; for procedural fairness, $F(1, 114) = 25.10$, $p < .001$; and for procedural satisfaction, $F(1, 114) = 24.75$, $p < .001$. These interactions indicated corroborative evidence for Hypothesis 1.

GENERAL DISCUSSION

Taken together, the findings of the two experiments show that it is important to make a distinction between implicit and explicit no-voice procedures: When information about procedure is not available—as is the case when persons implicitly have not received voice—people may find it difficult to decide how they should judge their procedure, and they therefore use the fairness of their outcome *as a heuristic substitute* to assess how to respond to the procedure. As a result, the procedural judgments of these people show strong fair outcome effects. However, individuals who have received procedural information—such as persons who explicitly have been denied voice or those who have received voice—

have to rely less on outcome information, yielding weaker fair outcome effects on procedural judgments. Furthermore, this has been found both when people judged a hypothetical procedure and outcome (Experiment 1) and even more convincingly when they directly experienced a procedure and outcome (Experiment 2). The results of Experiment 2 are particularly impressive because this experiment placed participants in a situation where they directly compared themselves to another person. These are important findings because they can be contrasted with suggestions that people who explicitly receive no voice will use outcome information more as source of information than persons who have been subjected to implicit no-voice or voice procedures (cf. Lind & Lissak, 1985; Van den Bos, Vermunt, & Wilke, 1997). More generally, these findings are important because they show that we should be careful in interpreting the results of voice studies and especially that we should pay attention to the differences between no-voice manipulations that have been used in previous procedural justice studies. Furthermore, the experiments presented in the current article reveal that the psychological importance of outcome fairness may depend on subtle differences in manipulations of procedure and therefore help to stimulate an integration of the procedural and distributive justice domains.

Now that important differences within no-voice procedures have been identified, future researchers may want to focus on other types of procedures (see Leventhal, 1980, for a list of procedures). It is interesting to note here that there is some evidence, collected by Daly and Tripp (1996), that suggests that when information about *biased procedures* is absent (as opposed to present) people seem to rely more on outcome information. In fact, to my knowledge, Daly and Tripp (1996) is the only paper thus far that has paid attention to the effects of availability of procedure information (absent vs present) as a possible moderator of the effects of variations in outcome on perceptions of procedure. Two empirical studies were presented by Daly and Tripp. The first study was a self-report survey in which all (dependent and independent) variables were measured at the same time. Participants were employees from private organizations who had been relocated, and procedural availability was operationalized by measuring the length of the relocation process. However, as the authors themselves note (pp. 333–334), length of relocation may influence other constructs besides information availability. The second study was a scenario study in which information availability was manipulated. In these scenarios participants read about an allocation decision that allegedly had been made by a university administration regarding a business college curriculum change. Unfortunately, however, in the conditions where procedure information was present the authors chose to present multiple, compounded pieces of procedure information to their participants. For example, in the biased procedure condition, the participants were told ''that (i) the decision was made by the business school administrators themselves, and (ii) the real goals of the dean were to increase enrollment, which would increase monies available to the dean to remodel his office, and to get new curriculum changes published in *Business Week,* to make the dean look good'' (p. 338). Furthermore,

the overall interaction effect in this scenario study was only marginally significant ($p < .08$).

More important, future research may want to focus on what procedure people are expecting. For instance, when people participate in a social psychological experiment they are not likely to expect an opportunity to voice their opinion (Van den Bos et al., 1996). Therefore, when they do not receive information about voice/no-voice procedures (and hence implicitly receive no voice), they do not have a strong basis on which to form evaluations of procedure. However, in some circumstances people may have learned to expect voice, and in such situations implicitly receiving no voice may make them suspicious about what is going on (''Why didn't I get voice?''). In other words, when people are expecting voice, an implicit no-voice procedure may give people a strong basis for procedure evaluations and as a result fair outcome effects are *not* likely. It would be interesting to investigate these sorts of questions in future research.

As explained in the introduction, fairness heuristic theory posits that people will not have much need of outcome information if they explicitly have been informed about procedure. Therefore, procedure was manipulated before the other independent variable in the two experiments (outcome). Future researchers might want to manipulate the order in which independent variables are presented to the participants (cf. Van den Bos, Vermunt, & Wilke, 1997). It seems reasonable to conclude on the basis of the current two experiments, however, that the psychological processes put forward in this article hold in at least some conditions.

Fairness heuristic theory argues—among other things—that in order to explain important phenomena in the procedural and distributive justice domain, it is necessary to know what information is (vs is not) available to people when they are forming judgments about procedure and outcome (Van den Bos, Lind, & Wilke, in press). In previous studies, the possible effects of information about procedure on outcome judgments were explored (see Van den Bos, Lind, et al., 1997; Van den Bos, Wilke, & Lind, 1998; Van den Bos, Wilke, Lind, & Vermunt, 1998). In most of these fair process studies, I and my coauthors have focused on the contents of outcome information and on when procedural fairness acts as a heuristic substitute when outcome information is missing or weak. The current results have expanded the line of reasoning from these previous studies to the reverse effect: the influence of outcome information on procedural judgments. These are important findings because it has been suggested that perceptions of outcome fairness cannot influence procedure judgments (see, e.g., Walker et al., 1979). It can now be concluded that procedural and outcome information can act as a substitute for missing information about outcome and procedure respectively. What is especially interesting about the current findings is that they make an important distinction between implicit and explicit no-voice procedures. This distinction is important because it furthers our understanding of the psychology of social justice phenomena and because it specifies what we are talking about when we talk about no-voice procedures.

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