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## On the psychology of procedural justice: reactions to procedures of ingroup vs. outgroup authorities

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### *Abstract*

*Theorizing on procedural justice has assumed that people's reactions to outgroup authorities are to a large extent based on instrumental concerns. Therefore, attention is primarily directed to outcomes rather than procedures in encounters with outgroup authorities. In the current article we propose that in order for people dealing with outgroup authorities to be strongly affected by procedural fairness, the available outcome information should be ambiguous. Furthermore, we argue that people confronted with an outgroup authority react particularly negatively to unfair procedures that give them negative outcome expectancies. These patterns are not expected in encounters with ingroup authorities. Two experiments support our line of reasoning. The discussion focuses on the implications of these findings for the integration of theoretical perspectives on procedural justice. Copyright © 2004 John Wiley & Sons, Ltd.*

Receiving fair treatment from authorities is an important aspect of people's lives. Ever since the early work by Thibaut and Walker (1975), effects of procedural justice and injustice on people's judgments and behaviours have been investigated and found in various social settings (for an overview, see Lind & Tyler, 1988). An example of a typical procedural justice effect is the frequently replicated finding that people react more positively to procedures that give them an opportunity to voice their opinion in a decision making process as opposed to procedures that do not give them such an opportunity (e.g. Folger, 1977). For example, voice procedures have been found to positively affect procedural justice judgments, the extent to which people are willing to accept subsequent decisions, and perceptions of people's relations with authorities (Lind & Tyler, 1988).

Overall, the procedural justice literature has provided two explanations to these findings. Thibaut and Walker's control model (1975) posits that people judge procedures that provide them with some

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amount of process control as fairer than procedures that do not provide any process control. The argument is that when people have some control over the process they have the opportunity to influence the decision by presenting arguments for their cause, and as a result people have a better chance to get a fair outcome. Thibaut and Walker's control model can be described as an instrumental model in that procedures are suggested to be important to people to the extent that they are perceived to have implications for their outcomes.

The relational model of authority (Tyler & Lind, 1992; cf. Lind & Tyler, 1988) has provided a different explanation for such procedural justice concerns. The relational model suggests that whether or not one has been treated fairly by an authority conveys information about one's position in the group. Authority treatment is especially important because authorities are seen as group representatives, and hence speak for the entire group. According to Lind and Tyler, fair treatment implies that the recipient is a respected member of the group as well as that the group in which he/she is a member is respectable and has high status. As a consequence, the relational model argues, procedural justice may affect people's self-esteem and personal identity (Koper, Van Knippenberg, Bouhuijs, Vermunt, & Wilke, 1993).

Based on the relational model's suggestion that fair treatment indicates that one is a respected member of the group and that one has relatively high status, whereas unfair treatment indicates that the recipient is not a respected member of the group and has a low status position, one would expect procedural (in)justice to have the greatest impact on people's reactions to decisions made in groups that are important for their social identities. For example, because groups in which one is a member should to a larger extent be a part of one's self-concept than groups in which one is not a member, information about whether or not one is respected by an authority from an ingroup should have stronger implications for one's social identity than information that one is not respected by an outgroup authority. Thus, because procedural fairness conveys information about respect and status, one would expect stronger effects of procedural fairness on reactions of people dealing with an ingroup authority than on reactions of people dealing with an outgroup authority. Furthermore, one would also expect procedural fairness to have a greater impact on people who identify strongly with the group than on people who identify less with the group. Both these hypotheses have received some support from correlational as well as experimental research (Huo, Smith, Tyler, & Lind, 1996; Smith & Tyler, 1996, 1997; Smith, Tyler, Huo, Ortiz, & Lind, 1998; Tyler & Degoey, 1995, 1996), and have been referred to as *the group membership effect* (Smith et al., 1998) and *the identification effect* (Tyler, Boeckmann, Smith, & Huo, 1997) respectively.

The aim of the present research is to further explore the psychology of the group membership effect. Whereas the majority of studies on the relationship between group membership and justice focus on differences in reactions to decisions in interpersonal vs. intergroup relations (e.g. Haslam, 2001; Platow, Reid, & Andrew, 1998; Wenzel, 2001), research on the group membership effect focuses on differences in people's reactions to decisions from ingroup vs. outgroup authorities. In general, the group membership effect seems to imply that people usually do not respond very strongly to procedures when confronted with an outgroup authority (e.g. Smith et al., 1998). In the current article we argue that this is not always necessarily the case, and we investigate conditions under which people confronted with an outgroup authority can be strongly affected by procedures. To do so, we integrate insights of both the relational model (Tyler & Lind, 1992; cf. Lind & Tyler, 1988) and of fairness heuristic theory (FHT), a social-cognitive procedural justice theory aimed at understanding how fairness judgments are formed (e.g. Lind, Kulik, Ambrose, & de Vera Park, 1993; Van den Bos, Lind, Vermunt, & Wilke, 1997; Van den Bos, Lind, & Wilke, 2001). We think that this is important, as integrating group-dynamic and social-cognitive perspectives of procedural justice could further our understanding of the psychology of procedural justice (Van den Bos, Vermunt, & Wilke, 1997). We now introduce our first experiment by presenting some findings from research on FHT. After this, we

integrate these findings with arguments from the relational model presented above and outline the specifics of the present research.

## EXPERIMENT 1

FHT focuses, among other things, on the formation of judgments about the fairness of outcomes and procedures (e.g. Van den Bos, Lind et al., 1997; Van den Bos, Vermunt et al., 1997). A central tenet of FHT is that to understand how people form fairness judgments it is essential to know what information is available when judgments about an outcome or procedure are formed (Van den Bos, Lind et al., 1997; Van den Bos et al., 2001). According to FHT, when the most relevant information for a particular judgment is unavailable, other types of information can serve as heuristic substitutes for the unavailable information. To test this idea, Van den Bos, Lind et al. (1997) manipulated the availability of information concerning the outcome of a comparison other in a resource allocation situation. Additionally, the fairness of the procedure was manipulated. The results from two experiments suggested that people base their outcome judgments to a large extent on outcome information when social comparison information is available. In contrast, when social comparison information is unavailable, outcome judgments can be strongly affected by information about the procedure. According to Van den Bos, Lind et al. (1997), when the most relevant information to evaluate the outcome (i.e. social comparison information) is absent, other information—such as information about the procedure—can serve as a heuristic substitute to evaluate the outcome. In a similar vein, effects of outcome information have been found on procedural fairness judgments when explicit information about the procedure is unavailable (Van den Bos, 1999). These findings have been referred to as examples of the *substitutability effect* (Van den Bos & Lind, 2002).

We argue here that the substitutability effect could add to the relational model's explanations of differences in reactions to procedures when confronted with ingroup vs. outgroup authorities. The relational model (Tyler & Lind, 1992; cf. Lind & Tyler, 1988) focuses predominantly on information about one's position in the group as conveyed by the fairness of procedures. Information about one's position in the group is expected to be most important in interactions with authorities that are important for one's social identity, which leads to the prediction that people are more strongly affected by procedural fairness when faced with ingroup authority than when faced with outgroup authority (e.g. Smith et al., 1998). In contrast, it has been suggested that people attach relatively more importance to instrumental concerns when dealing with outgroup authorities than when dealing with ingroup authorities (Huo et al., 1996). Indeed, a recent study suggests that people's fairness evaluations are more strongly influenced by outcome favourability when faced with an outgroup authority than when faced with an ingroup authority (Duck & Fielding, 2003). However, as suggested by Thibaut and Walker (1975), procedures not only convey information about one's position in the group, but can also convey outcome relevant information (e.g. by means of giving people a varying degree of process control). To the extent that instrumental concerns are pivotal in encounters with outgroup authorities, we suggest here that outcome relevant information conveyed by procedures might be highly relevant for people dealing with outgroup authorities. As a result, we argue that people can be strongly affected by voice as opposed to no-voice procedures also when faced with an outgroup authority.

Based on FHT we argue here that a prerequisite might be that the available outcome information is ambiguous, for example, because social comparison information is not available. In fact, because people are particularly concerned about outcomes when faced with an outgroup authority, and because people generally expect an outgroup authority to favour members of his/her own group over members of an outgroup (e.g. Duck & Fielding, 1999; Kramer, Shah, & Woerner, 1995; J.-W. Van Prooijen,

K. Van den Bos, H. A. M. Wilke, & E. A. Lind, submitted; on the role of authority's biased attitudes in people's reactions to negative procedures, 2003), we suggest that people faced with an outgroup authority should be particularly prone to search for alternative information to evaluate their outcome when social comparison information is not available. As a result, we expect people faced with an outgroup authority to use information about the procedure as a heuristic substitute, and to react negatively to a no-voice procedure as opposed to a voice procedure (Van den Bos, Lind et al., 1997). Put differently, we predict that differences in reactions to voice as opposed to no-voice procedures are enhanced for people faced with an outgroup authority when social comparison information is not available.

In contrast, in encounters with ingroup authorities people are expected to react positively to voice procedures mainly based on relational concerns rather than based on whether the procedure conveys outcome relevant information or not (Lind & Tyler, 1988; Tyler & Lind, 1992). Therefore, we would not expect as strong substitutability effects when social comparison information is not available in encounters with ingroup authorities. Based on these arguments we predict that reactions to outgroup authority procedures are to a larger extent than reactions to ingroup authority procedures moderated by the availability of social comparison information (Hypothesis 1).

We investigated this hypothesis by manipulating the authority's group membership (i.e. whether the authority belonged to the participant's ingroup or to an outgroup), the opportunity for subjects to voice their opinion in the decision-making process, as well as the availability of information concerning the outcome of a comparison other. Main dependent variables were judgments most commonly assessed in procedural justice research: participants' procedural justice judgments (e.g. Lind & Tyler, 1988; Tyler & Lind, 1992). Furthermore, to investigate whether our hypothesis may generalize to behavioural intentions, we also assessed some behavioural intentions that have been shown to be affected by procedural justice considerations: participants' willingness to accept an authority's decision (Lind & Tyler, 1988).

## **Method**

### *Participants and Design*

One hundred thirty one students of Leiden University (37 men, 94 women) between 18 and 51 years of age were randomly assigned to the 2 (authority categorization: ingroup/outgroup)  $\times$  2 (procedure: voice/no voice)  $\times$  2 (social comparison information: available/not available) factorial design. Subjects participated in the experiment before participating in other unrelated experiments. The experiments lasted a total of 1.5 hours and all participants were paid 15 Dutch guilders for their time in the laboratory.

### *Procedure*

Upon arrival to the laboratory all participants were led to separate cubicles. In each cubicle participants found a computer and a computer screen, a keyboard and a computer mouse. The computers were used to present the stimulus information as well as to collect the data. The experiment was introduced as a study on how people perform tasks. It was announced that the computers were connected and that it was possible for the experimenter to communicate with the participants. Participants then took part in the experiment and answered the questions constituting the dependent variables and manipulation checks.

In the first part of the instructions, participants were told that the aim of the study was to investigate differences in task performance between Leiden University students and students from the Free

University of Amsterdam. This was followed by the authority categorization manipulation. In the ingroup condition, participants were told that the experimenter was from Leiden University. In the outgroup condition, participants were told that the experimenter was from the Free University of Amsterdam. Free University of Amsterdam was used as the outgroup in this study because it was agreed upon by several Dutch scholars that the status of this university is approximately equal to the status of Leiden University. It was then explained to the participants that they were participating in the experiment with another person, a student from the Free University of Amsterdam. Participants were also informed that during the experiment they would receive messages from the experimenter by means of the computer network (in reality, all information was pre-programmed).

After that, the experimental procedure was explained to the participants. Participants would work on tasks in two rounds: a 2 minute practice round and then a 10 minute work round. Furthermore, it was communicated that after all participants had participated, a lottery would be held among all participants. Participants were informed that the winner of this lottery would receive 100 Dutch guilders. Participants were told that a total of 200 lottery tickets were to be divided between all subjects. Participants were informed that at the end of the experiment the experimenter would divide some of these lottery tickets between them and the subject from the Free University. Participants then worked on the tasks in a practice round for 2 minutes, and then in a work round for 10 minutes. The tasks were the same tasks used in the experimental paradigm developed by Van den Bos, Lind et al. (1997). A figure was presented on the upper right side of the screen. This figure consisted of 36 squares and each square showed one out of eight distinct patterns. On the upper left side of the screen, a single square showing one of the eight patterns was displayed. Participants had to count the number of squares in the figure containing the same pattern as the square on the left side of the screen. As soon as the participant indicated the right number of squares containing the distinct pattern, a new figure and a new pattern appeared on the screen. During the practice round as well as the work round, the number of completed tasks was presented throughout the round on the lower right side of the screen. On the lower left side, the time remaining was displayed. After the practice round and the work round had been completed, participants received information concerning the number of tasks they had performed.

Following the work round, participants were informed that the student from the Free University performed an equivalent number of tasks. After that, participants were then told that some lottery tickets would be divided between themselves and the student from the Free University. It was communicated that the experimenter would allocate the lottery tickets. In order to make the group membership of the authority more salient (Smith et al., 1998) participants were then asked to indicate whether the experimenter was from Leiden University or from Free University Amsterdam. Participants who gave a wrong answer received information about the right affiliation of the experimenter, after which the question was repeated until a correct response was given. After that, the procedure manipulation took place. Participants in the voice condition received a message from the experimenter informing them that the experimenter was interested in the participant's opinion concerning the percentage of lottery tickets he/she should receive in relation to the Free University student. Therefore, it was communicated, the participant would get an opportunity to voice his/her opinion on this matter. Participants in the voice condition then got to indicate their opinion concerning the allocation of lottery tickets. Participants in the no-voice condition received a message from the experimenter informing them that the experimenter was not interested in the participant's opinion concerning the percentage of lottery tickets he/she should receive in relation to the Free University student. Therefore, it was communicated, the participant would not get an opportunity to voice his/her opinion on this matter. Thus participants in the no-voice condition did not get to indicate their opinion concerning the allocation of lottery tickets. After that, all participants were informed that they would receive three lottery tickets.

Then the availability of social comparison information was manipulated. Participants in the social comparison information available condition were informed that the other participant also would receive three lottery tickets. Participants in the social comparison information not available condition did not receive any information concerning the number of tickets that the other participant would receive. All participants then answered the questions constituting the dependent variables and manipulation checks. All ratings were made on 7-point Likert scales.

Main dependent measures consisted of one item referring to the fairness of the procedure used by the experimenter and four items referring to the willingness to accept the authority's decision. The procedural justice item read 'How just was the way you were treated?' (1 = *very unjust*, 7 = *very just*). The decision acceptance items were 'To what extent are you willing to accept the decisions of the experimenter?' (1 = *not at all*, 7 = *very much*), 'To what extent are you willing to respect the decisions of the experimenter?' (1 = *not at all*, 7 = *very much*), 'To what extent are you willing to carry out the decisions of the experimenter?' (1 = *not at all*, 7 = *very much*), 'To what extent are you willing to comply with the decisions of the experimenter?' (1 = *not at all*, 7 = *very much*). Before analysing the data these four items were averaged to create a reliable decision acceptance scale ( $\alpha = 0.91$ ).

In order to check whether the procedure had been perceived as intended, participants were asked the following question: 'To what extent did you get an opportunity to voice your opinion?' (1 = *not at all*, 7 = *very much*). To check whether the social comparison information had been perceived as intended, two questions were asked: 'To what extent did you receive information concerning how many lottery tickets the Free University student will receive?' (1 = *not at all*, 7 = *very much*) and 'To what extent did you not receive information concerning how many lottery tickets the Free University student will receive?' (1 = *not at all*, 7 = *very much*). Before analysing the data the second item was reversed and the two items were averaged to create a reliable scale ( $\alpha = 0.80$ ). After these questions had been answered, all subjects were fully debriefed, thanked and paid for their participation.

## Results

Although a preliminary analysis revealed a significant interaction involving sex of participant on one of our dependent variables (decision acceptance), we chose not to include sex in the analyses reported here. Sex was excluded from the analyses because some cells contained very few male participants. In fact, one of the eight cells contained only one male participant.

### *Manipulation Checks*

*Authority Categorization* Fifty eight out of 65 participants in the ingroup condition correctly indicated that the authority was from Leiden University. Similarly, 60 out of 66 participants in the outgroup condition correctly indicated that the experimenter was from Free University Amsterdam. It should be noted here that the 13 participants who gave a wrong answer on the authority categorization check subsequently received information about the affiliation of the experimenter after which the authority categorization question was posed again until answered correctly. Furthermore, excluding those participants who made an initially incorrect response yielded similar findings on our dependent variables as when they were included. We therefore decided to report the analysis where all participants were included.

*Procedure* A  $2 \times 2 \times 2$  analysis of variance (ANOVA) on the manipulation check of procedure yielded only a significant main effect of procedure,  $F(1, 123) = 968.57, p < 0.001$ . Participants in the voice condition agreed more with the statement that they had received voice ( $M = 6.66; SD = 1.43$ )



than did participants in the no-voice condition ( $M = 1.03$ ;  $SD = 0.25$ ). Thus, it can be concluded that the manipulation of procedure was perceived as intended.

**Social Comparison Information** A  $2 \times 2 \times 2$  ANOVA on the social comparison information scale yielded a significant main effect of social comparison information,  $F(1, 123) = 467.85$ ,  $p < 0.001$ . Participants in the social comparison information available condition agreed more with the statement that they had received information concerning the outcome of a comparison other ( $M = 6.17$ ;  $SD = 1.21$ ) than did participants in the social comparison information not available condition ( $M = 1.78$ ;  $SD = 1.17$ ). However, results also showed an unexpected main effect of procedure,  $F(1, 123) = 4.08$ ,  $p < 0.05$ . Participants in the voice condition agreed slightly more with the statement that they had received information concerning the outcome of a comparison other ( $M = 4.18$ ;  $SD = 2.45$ ) than participants in the no-voice condition ( $M = 3.77$ ;  $SD = 2.55$ ). In addition, a main effect of authority categorization was found,  $F(1, 123) = 4.81$ ,  $p < 0.05$ . Participants in the ingroup condition agreed slightly more with the statement that they had received social comparison information ( $M = 4.20$ ;  $SD = 2.58$ ) than participants in the outgroup condition ( $M = 3.75$ ;  $SD = 2.43$ ).

To summarize then, although the main effects of procedure and authority categorization were unexpected, the effect sizes were notably small (for the procedure main effect:  $\eta^2 = 0.03$ ; for the authority categorization main effect:  $\eta^2 = 0.04$ ). In contrast, the main effect of social comparison information was notably strong ( $\eta^2 = 0.79$ ). Based on these effect sizes, as well as the pattern of the means, we conclude that the social comparison information scale was primarily affected by the social comparison information manipulation. Hence, we believe it is reasonable to conclude that this manipulation was successful.

### Dependent Variables

**Procedural Justice Judgments** A  $2 \times 2 \times 2$  ANOVA on the procedural justice item yielded main effects of procedure,  $F(1, 123) = 16.46$ ,  $p < 0.001$ , and of social comparison information,  $F(1, 123) = 48.46$ ,  $p < 0.001$ . More importantly, these main effects were qualified by a significant three-way interaction,  $F(1, 123) = 4.22$ ,  $p < 0.05$ . The cell means are described in Table 1. To further test our hypothesis, we tested the interaction between procedure and social comparison information within each authority categorization condition against the overall error term. As expected, the interaction

Table 1. Means and standard deviations of the dependent variables as a function of procedure, authority categorization and social comparison information (Experiment 1)

Dependent variable	Procedure	Authority categorization			
		Ingroup		Outgroup	
		Social comparison information		Social comparison information	
		Available	Not available	Available	Not available
Procedural fairness	Voice	6.42 (0.77)	4.63 (1.31)	5.36 (1.15)	4.61 (1.50)
	No voice	5.15 (1.52)	3.59 (1.23)	5.45 (1.50)	3.00 (1.57)
Decision acceptance	Voice	5.28 (0.69)	4.66 (1.07)	5.30 (0.95)	5.63 (0.77)
	No voice	5.06 (1.10)	4.06 (1.17)	5.50 (1.24)	3.75 (1.54)

*Note:* Higher values indicate higher ratings of the dependent variable in question. Entries within parentheses are standard deviations.

between procedure and social comparison information was significant within the outgroup condition,  $F(1, 123) = 6.14$ ,  $p < 0.02$ , but not within the ingroup condition,  $F < 1$ . As a final step in testing our hypothesis, we needed to test the two simple effects of procedure within the outgroup condition as well as in the ingroup condition. As expected, in the outgroup condition, the effect of procedure was significant when social comparison information was not available,  $F(1, 123) = 11.50$ ,  $p < 0.002$ , and not when social comparison information was available,  $F < 1$ . In the ingroup condition, in contrast, the effect of procedure was significant both when social comparison information was not available,  $F(1, 123) = 4.99$ ,  $p < 0.03$ , and when social comparison information was available,  $F(1, 123) = 6.98$ ,  $p < 0.01$ .

In line with our hypothesis, these results clearly indicate that people's reactions to the outgroup authority's procedures were moderated by the availability of social comparison information, whereas reactions to the ingroup authority's procedures were not. Voice only had a positive effect on evaluations of the outgroup authority's procedures when social comparison information was not available. In contrast, voice had a positive effect on evaluations of the ingroup authority's procedures both when social comparison information was available and not available.

*Decision Acceptance* A  $2 \times 2 \times 2$  ANOVA on the decision acceptance scale yielded main effects of procedure,  $F(1, 123) = 10.74$ ,  $p < 0.002$ , and of social comparison information,  $F(1, 123) = 16.0$ ,  $p < 0.001$ . In addition a procedure  $\times$  social comparison information interaction was found,  $F(1, 123) = 10.14$ ,  $p < 0.003$ . More importantly for this study however, a three-way interaction was found,  $F(1, 123) = 4.97$ ,  $p < 0.03$ . The cell means are described in Table 1. To further test our hypothesis, we tested the interaction between procedure and social comparison information within each authority categorization condition against the overall error term. As expected, the procedure  $\times$  social comparison information interaction was significant in the outgroup condition,  $F(1, 123) = 16.06$ ,  $p < 0.001$ , but not in the ingroup condition,  $F < 1$ . As a final step in testing our hypothesis, we tested the two simple effects of procedure within the outgroup condition and within the ingroup condition. As expected, the effect of procedure was significant in the outgroup condition when social comparison information was not available,  $F(1, 123) = 23.60$ ,  $p < 0.001$ , and not when social comparison information was available,  $F < 1$ . In the ingroup condition however, the effect of procedure was not significant when social comparison information was not available,  $F(1, 123) = 2.34$ , ns, or when social comparison information was available,  $F < 1$ .

These findings support our argument that differences in procedural influence when social comparison information was available vs. not available were larger for participants in the outgroup condition than for participants in the ingroup condition. As expected, voice had a strong positive impact on people's willingness to accept the outgroup authority's decision only when social comparison information was not available. However, voice surprisingly had no effect on people's willingness to accept the ingroup authority's decision. We will get back to this finding in the discussion.

## Discussion

The results of this experiment supported our hypothesis that social comparison information affects reactions to procedures to a greater extent when facing an outgroup authority than when facing an ingroup authority. We have shown that when people are faced with an outgroup authority and do not know the outcome of a comparison other, the impact of procedures on subsequent reactions such as procedural fairness judgments and willingness to accept the decision can be as strong as, and



sometimes even stronger than, when people are faced with an ingroup authority. However, when people know the outcome of a comparison other, the procedure used by the authority might have no influence on their procedural fairness judgments or their willingness to accept the decision. We have also shown that the effect of an ingroup authority's procedures does not to the same extent follow this pattern. In our experiment an ingroup authority's procedures strongly influenced people's procedural fairness judgments both when the outcome of a comparison other was available and when it was not available. Willingness to accept the decision, in contrast, was unaffected by the procedure both when the outcome of a comparison other was available and when it was not available. Thus the influence of the procedure was moderated by social comparison information in the outgroup authority condition, whereas the procedure had comparable effects in both social comparison information conditions in the ingroup authority condition.

These results are in line with our hypothesis, although the absence of procedural influence on the willingness to accept the decision of an ingroup authority is rather surprising. A tentative explanation is that decision acceptance judgments in our experiment were closely related to the received outcome. That is, participants were asked to what extent they were willing to accept the decision concerning the amount of lottery tickets they would receive (i.e. to what extent they were willing to accept their outcome). It can therefore be argued that our decision acceptance measures predominantly assessed outcome related judgments. This position is in correspondence with recent research that found in several studies that people's willingness to accept decisions was more strongly affected by instrumental concerns than other measures of legitimacy (Tyler, 1997). Furthermore, we have argued that people faced with an ingroup authority use information about voice opportunities mainly to evaluate their relationship with the authority, whereas people dealing with an outgroup authority use such information as a heuristic substitute for outcome information. Therefore, it is plausible that outcome related judgments are particularly sensitive to manipulations of voice when faced with an outgroup authority. Hence, although not expected, the absence of procedural influence on the decision acceptance judgments of people in the ingroup authority condition might not be entirely against our line of reasoning. Of course, research is needed to determine the validity of this post-hoc explanation.

To return to the primary goal of this study, the most important finding is that reactions to an outgroup authority's decisions can be strongly affected by procedural fairness. In fact, this study suggests that the fairness of the procedure can affect the extent to which people are willing to accept outgroup authorities' decisions. However, this fair process effect is expected only when the available outcome information is ambiguous. Thus, our findings demonstrate that in situations where procedures convey outcome relevant information, the reactions of people dealing with an outgroup authority can be strongly influenced by procedures.

## EXPERIMENT 2

The findings of our first experiment give some support for our argument that procedural concerns of people facing an outgroup authority to a large extent may stem from a different motive than procedural concerns of people facing an ingroup authority. We argue that people are interested in procedural fairness in encounters with outgroup authorities to the extent that procedures convey outcome relevant information. Taking this argument one step further, it is plausible that in encounters with outgroup authorities, it is not necessarily *fair* procedures that people strive for, but *favourable* procedures. After all, a favourably unfair procedure should, as should a fair procedure, yield positive outcome expectancies. Note that based on equity theory (Walster, Berscheid, & Walster, 1973) and Thibaut and Walker's control model (1975), we do not expect people faced with an outgroup authority to prefer

a favourably unfair procedure to a fair procedure. However, we do suggest that people might prefer favourably unfair procedures to unfavourably unfair procedures in encounters with outgroup authorities. Our first study did not investigate this self-favouring component inherent in our arguments of procedural concerns in encounters with outgroup authorities. Therefore, we decided to do a second experiment.

To test these arguments we applied a different manipulation of procedure than in the previous study. Leventhal (1980) suggested that, in addition to the preference for voice procedures over no-voice procedures, people prefer an accurate procedure in favour of an inaccurate procedure. That is, people prefer when authorities consider *all* relevant information in a decision-making process as opposed to only *some* relevant information or irrelevant information. Research has successfully used procedural accuracy as an operationalization of procedural justice (Van den Bos, Vermunt et al., 1997; Vermunt, Wit, Van den Bos, & Lind, 1996).

However, we suggest here that a distinction can be made between favourably and unfavourably inaccurate procedures. For example, when an authority only considers some relevant information in a decision-making process (i.e. an inaccurate procedure), the information considered may favour any one of the parties involved in the allocation process. Thus, in the eyes of a recipient, the procedure can be perceived as favourably inaccurate or as unfavourably inaccurate. To the best of our knowledge, the significance of this distinction has not yet been explored in procedural justice research. The distinction between favourable and unfavourable procedural inaccuracy shows some correspondence with distributive justice studies that have investigated people's reactions to unequal allocations in favour of self or in favour of other. However, distributive justice studies (e.g. Walster et al., 1973) focus on reactions to favourable vs. unfavourable *outcomes* whereas our interest lies in favourable vs. unfavourable *procedures*. We argue that this might be a fruitful distinction when investigating effects of procedures based on instrumental concerns. That is, if people are attentive to procedures mainly to predict or to evaluate their own outcome in encounters with outgroup authorities, it is possible that they also would prefer an unfair procedure that gives them positive outcome expectancies to an unfair procedure that gives them negative outcome expectancies. In other words, people might react more positively to a favourably inaccurate procedure than to an unfavourably inaccurate procedure when dealing with an outgroup authority.

Based on the relational model of authority people are not expected to react in this manner in encounters with ingroup authorities. This is so because unfair procedures are, regardless of their relative favourability, inconsistent with societal norms and imply that the group to which they belong is neither respected nor a high-status group (Lind & Tyler, 1988; Tyler & Lind, 1992). Thus, we argue that people's reactions to an outgroup authority's procedures will vary between situations where the procedure is favourably inaccurate vs. unfavourably inaccurate, whereas reactions to an ingroup authority's procedures will not. Based on this line of reasoning, we predict an interaction between procedural accuracy and authority categorization in such a way that reactions to an outgroup authority's procedures are more positively affected when the procedure is favourably inaccurate as opposed to unfavourably inaccurate than are reactions to an ingroup authority's procedures (Hypothesis 2).

We investigated this hypothesis in an experiment by manipulating the group membership of the authority (i.e. whether the authority belonged to the participant's ingroup or to an outgroup) and the accuracy of the procedure. Main dependent measures in this study were participants' relational judgments. We decided to focus on relational judgments for several reasons. First, it is one of the most common dependent variables in research on group membership effects (e.g. Huo et al., 1996; Lind & Tyler, 1988; Smith & Tyler, 1997), thus it is important to see whether our predictions may generalize to this variable. Second, relational judgments tend to be closely related to procedural fairness judgments (Huo et al., 1996; Tyler, 1989; Tyler & Lind, 1992), the dependent variable demonstrating the most clear-cut support for our arguments in the first study.

## Method

### *Participants and Design*

One hundred twenty eight students of University of Skövde (39 men, 89 women) between 18 and 46 years of age were randomly assigned to the 2 (authority categorization: ingroup/outgroup)  $\times$  3 (procedure: accurate/favourably inaccurate/unfavourably inaccurate) factorial design. Subjects participated in the experiment after taking part in another unrelated experiment. The experiments lasted a total of 50 minutes and all participants received a movie ticket for their time in the laboratory.

### *Procedure*

Upon arrival subjects were led to separate cubicles containing a computer, a monitor and a computer mouse. The computers were used to present the stimulus information as well as to collect the data. Participants were asked to imagine the following scenario:

You are working in an organization. The organization consists of two departments, the Blue department and the Red department. You are a member of the Blue department. Each department is more or less working independently from the other and with its own particular products. One day the head of the whole organization announces a competition among the employees. As a step in becoming more competitive within the organization, all workers are to perform a problem-solving test. The test will be carried out by two persons at a time and the one that gets the highest score of the two, will receive a financial reward. It has been arranged in such a way that workers from the Blue department always do the test together with workers from the Red department. Hence, you do the test together with a worker from the Red department. The test consists of three parts, and after each part you receive feedback concerning your results on the test from the person in charge of the test. This is the feedback you received when taking the test:

1st part: You were way below average

2nd part: You were about average

3rd part: You were way above average

Then followed the manipulation of authority categorization (manipulated information in italics): 'The person in charge of the test, an assistant manager from the *Blue department/Red department* then gives you the following information:'

This was followed by the manipulation of procedure. Participants in the inaccurate conditions read (manipulated information in italics): 'I am only going to consider the *1st part/3rd part* of the test when deciding who of you should get the financial reward.' Participants in the accurate condition read: 'I am going to consider all parts of the test when deciding who of you should get the financial reward.'

Participants then answered the questions constituting the dependent variables and manipulation checks. All measures were made on 7-point Likert scales. Dependent measures consisted of participants' relational judgments. The relational items were: 'Do you think the test leader respects you?' (1 = *not at all*, 7 = *very much*), 'Do you think the test leader trusts you?' (1 = *not at all*, 7 = *very much*), 'Do you respect the test leader?' (1 = *not at all*, 7 = *very much*), 'Do you trust the test leader?' (1 = *not at all*, 7 = *very much*) and 'Do you think the test leader is biased?' (1 = *not at all*, 7 = *very much*). The scores on the last item were reversed after which all items were averaged to create a reliable relational judgment scale ( $\alpha = 0.88$ ). To check whether the authority categorization manipulation was perceived as intended, two questions were asked: 'To what extent do you agree with the statement that the test leader was from your department?' (1 = *not at all*, 7 = *very much*) and 'To what extent do you agree with the statement that the test leader was not from your own department?'

(1 = not at all, 7 = very much). The scores on the second item were reversed and both items were averaged to create a reliable authority categorization scale ( $\alpha = 0.94$ ). To check whether the procedure manipulation was perceived as intended we asked: 'How accurate is the procedure to decide who will get the financial reward?' (1 = *not at all*, 7 = *very much*). In addition, to check the favourability of the procedure were asked: 'To what extent do you agree with the statement that the procedure used by the test leader to make a decision will increase your chances to get the financial reward?' (1 = *not at all*, 7 = *very much*).

## Results

For all manipulation checks and dependent variables we also included sex of participant in the analysis. Because these analyses yielded no significant main or interaction effects including sex of participant, sex of participant will not be considered further.

### *Manipulation Checks*

To check whether the manipulations were perceived as intended, a  $2 \times 3$  ANOVA was performed on each measure. On the authority categorization scale only a main effect of authority categorization was found,  $F(1, 122) = 456.23$ ,  $p < 0.001$ . As expected, participants in the ingroup authority condition agreed to a larger extent with the statement that the test leader was from their own department ( $M = 6.10$ ;  $SD = 1.56$ ) than did participants in the outgroup authority condition ( $M = 1.23$ ;  $SD = 0.95$ ). Analysis of the manipulation check of procedural accuracy yielded only a main effect of procedure,  $F(2, 122) = 16.73$ ,  $p < 0.001$ . A Tukey test showed that participants in the accurate procedure condition perceived the procedure as significantly more accurate ( $M = 4.12$ ;  $SD = 2.23$ ) than did participants in the unfavourably inaccurate ( $M = 2.45$ ;  $SD = 1.85$ ) and favourably inaccurate procedure conditions ( $M = 1.93$ ;  $SD = 1.24$ ). The difference between the favourably inaccurate and unfavourably inaccurate condition was not significant. Finally, analysis of the procedure favourability item yielded only a main effect of procedure,  $F(2, 122) = 105.98$ ,  $p < 0.001$ . A Tukey test demonstrated that participants in the favourably inaccurate procedure condition perceived that the procedure increased their chances to get the financial reward significantly more ( $M = 6.21$ ;  $SD = 1.53$ ) than did participants in the accurate condition ( $M = 3.86$ ;  $SD = 1.89$ ) who in turn perceived that the procedure increased their chances to get the financial reward significantly more than did participants in the unfavourably inaccurate procedure condition ( $M = 1.45$ ;  $SD = 0.92$ ). Thus, we conclude that the manipulations have been perceived as intended.

### *Relational Judgments*

A  $2 \times 3$  ANOVA on the relational judgment scale yielded a main effect of procedure,  $F(2, 122) = 8.40$ ,  $p < 0.001$ . More importantly however, this effect was qualified by a significant two-way interaction,  $F(2, 122) = 7.07$ ,  $p < 0.002$ . The cell means are described in Table 2. To test our hypothesis more directly, we needed to test whether the interaction was due to different reactions to the favourably inaccurate vs. unfavourably inaccurate procedure. To do so, we computed a 'favourability contrast' that contrasted the favourably inaccurate procedure with the unfavourably inaccurate procedure, and tested the interaction between this contrast and the authority categorization manipulation.<sup>1</sup> As expected, this yielded a significant interaction effect between the favourability contrast and the authority categorization manipulation,  $F(1, 122) = 9.21$ ,  $p < 0.01$ . In line with our hypothesis, the

<sup>1</sup>The vector that was used for testing the contrast was 0, +1, -1, thereby contrasting the favourably inaccurate procedure condition with the unfavourably inaccurate procedure condition.

Table 2. Means and standard deviations of relational judgments as a function of authority categorization and procedure (Experiment 2)

Authority categorization	Procedure		
	Accurate	Favourably inaccurate	Unfavourably inaccurate
Ingroup	5.21 (1.16)	3.66 (1.60)	3.81 (1.53)
Outgroup	4.41 (1.48)	4.97 (1.09)	3.28 (1.63)

Note: Higher values indicate more positive relational judgments. Entries within parentheses are standard deviations.

effect of the favourability contrast was significant within the outgroup authority condition,  $F(1, 122) = 15.10, p < 0.001$ , and not within the ingroup authority condition,  $F < 1$ . As expected, relational judgments of participants in the outgroup authority condition were significantly more positive when the procedure was favourably inaccurate rather than unfavourably inaccurate. This difference was not significant for participants in the ingroup authority condition. As an aside, it can further be noted that relational judgments of participants in the ingroup authority conditions differed significantly between the accurate and the favourably inaccurate procedure,  $F(1, 122) = 12.75, p < 0.001$ , whereas relational judgments of participants in the outgroup authority condition did not,  $F(1, 122) = 1.67, ns$ .

## Discussion

The results of our second experiment corroborated our line of reasoning that instrumental concerns to a large extent influence reactions to outgroup authority procedures. As predicted, people faced with an outgroup authority judged the authority more positively in their relational evaluations after a favourably inaccurate procedure than after an unfavourably inaccurate procedure, whereas people faced with an ingroup authority did not. In addition, relational judgments of people encountering an outgroup authority showed no significant difference between the accurate procedure condition and the favourably inaccurate procedure condition. In other words, people perceived a favourably inaccurate procedure to indicate a just as positive relationship with the authority as an accurate procedure when the authority was from the outgroup. These findings strongly suggest that people are heavily outcome oriented when reacting to outgroup authorities' allocation procedures.

## GENERAL DISCUSSION

Taken together the findings of these experiments suggest that the influence of procedures stems from different concerns when dealing with ingroup vs. outgroup authorities. Whereas people pay attention to an ingroup authority's procedures mainly to evaluate their relationship with the authority and their own status in the group—as suggested by the relational model—this is hardly the case in encounters with outgroup authorities. After all, it seems rather pointless to evaluate one's status in a group to which one is not an ingroup member. Relevant social identity information is expected to be derived from important groups of which one is a member (Hogg & Abrams, 1988; Tajfel & Turner, 1979; Tyler & Lind, 1992). The findings of our first experiment suggest that people instead pay attention to outgroup authorities' procedures mainly out of concerns to evaluate ambiguous outcomes. In the words of FHT, people use information about the outgroup authority's procedure as a heuristic substitute for preferred but unavailable outcome information (Van den Bos, Lind et al., 1997). Notably decision acceptance ratings yielded a somewhat different pattern than procedural justice judgments. In general, people's willingness to accept decisions was strongly affected by outcome information. These findings suggest, in correspondence with recent research (Tyler, 1997), that decision acceptance is more closely related

to instrumental concerns than other measures of legitimacy. In line with our arguments, however, our findings also suggest that substitutability effects of voice on willingness to accept decisions are stronger in encounters with outgroup authorities than in encounters with ingroup authorities.

Based on previous findings of Van den Bos and his colleagues (Van den Bos, Lind et al., 1997) one might wonder why we did not find a substitutability effect (albeit smaller) also in the ingroup condition. However, there is an important difference between the Van den Bos et al. study and the present research that should be noted here. Whereas Van den Bos et al. investigated effects on outcome fairness judgments, we focused on effects on procedural fairness judgments and decision acceptance. Although social comparison information should be the most relevant information to form a judgment about the fairness of an outcome (Van den Bos, Lind et al., 1997), it is not necessarily the most important information to decide whether a decision is acceptable or not, and it is not the most important information to form a judgment about the fairness of a procedure (Van den Bos, 1999). Thus, although unambiguous outcome information might overrule procedural information when forming an outcome fairness judgment also in encounters with an ingroup authority, this should not be the case when forming other judgments, such as judgments about the fairness of the procedure.

We also suggested that if people's reactions to outgroup authorities' procedures could be explained by a substitutability effect in response to unavailable outcome information, it is plausible that they would also prefer a procedure which gives them positive outcome expectancies, as opposed to a procedure which gives them negative outcome expectancies. More explicitly, we argued that people might prefer a favourably inaccurate procedure to an unfavourably inaccurate procedure when dealing with an outgroup authority. This line of reasoning was supported by the results of our second experiment. As predicted, a favourably inaccurate procedure had a more positive effect on relational judgments of people faced with an outgroup authority than an unfavourably inaccurate procedure. In fact, the results from our study suggest that people may not react differently to accurate procedures than to favourably inaccurate procedures when dealing with an outgroup authority. Our findings instead suggest that the most important distinction in reactions to an outgroup authority's procedures may be between procedures that are either accurate or favourably inaccurate on the one hand and procedures that are unfavourably inaccurate on the other.

The findings of Experiments 1 and 2 suggest some interesting new directions for theory and research in the area of procedural justice. In particular, our findings suggest that research on identity-based theories of procedural justice might benefit from taking cognitive aspects of fairness judgment formation into consideration. We have demonstrated that by integrating theorizing on substitutability effects with arguments of the relational model, it is possible to make predictions about when people are strongly affected by outgroup authorities' procedures. An important task for the future will be to gather cognitive process data supporting the information processing patterns suggested to cause the effects presented in this article. In addition, a remaining task is to study the effects of instrumental concerns more directly. That is, to test whether manipulating the availability of instrumental concerns indeed affects reactions to procedures in the ways suggested by the present research. Such findings would increase our confidence in the arguments presented in this article substantially.

In a similar vein, theorizing on substitutability effects suggest conditions where people should be particularly strongly affected by ingroup authorities' procedures as well. For example, we would expect that ambiguity about relational information (e.g. respect, trust) to a larger extent should enhance the impact of an ingroup authority's procedures than an outgroup authority's procedures. Furthermore, substitutability effects are but one way in which information processing can affect reactions to procedures (Van den Bos et al., 2001). We are convinced that a lot more research can and should be done to integrate matters of cognition and motivation in justice research.

On another point, other researchers may want to investigate whether the findings of our first study generalize to situations where available social comparison information indicates an unfair rather than a



fair allocation. Numerous studies (for an overview, see Brockner & Wiesenfeld, 1996) have demonstrated that reactions to unfavourably unfair outcomes are generally more negative following unfair procedures rather than fair procedures. Based on these findings, it could be argued that outgroup authorities procedures should have a stronger impact when social comparison information indicates an unfavourably unfair rather than a fair outcome. However, because people faced with outgroup authorities are mainly interested in outcome information, and because people expect outgroup authorities to be biased (e.g. Kramer et al., 1995), we suspect that an unfavourably unfair outcome allocated by an outgroup authority is enough to conclude that the authority is biased. As a result, we believe that our findings that procedural fairness does not have a strong impact on reactions to outgroup authorities' decisions when social comparison information is available should generalize to unfavourably unfair outcomes as well. Of course, this is for future research to determine.

Our general arguments received stronger support from procedural fairness judgments and relational judgments than from decision acceptance. Therefore, we think it might be fruitful to further investigate the boundaries of these findings. For example, it would be interesting to see whether the findings reported here can be generalized to more outcome related judgments, such as outcome fairness and outcome satisfaction, or whether they are restricted to more procedure related judgments such as procedural fairness judgments and relational judgments.

As reported above, the manipulation check of social comparison information in Experiment 1 showed some additional effects to the one intended. As a consequence, some doubts regarding the validity of our findings are at hand. However, it should be noted that the general hypothesis behind both our experiments was the same: that people's reactions to outgroup authorities' procedures are to a larger extent based on outcome concerns than reactions to ingroup authorities' procedures. Therefore, the fact that all the manipulation checks of the second experiment were successful, and that results from *both* our experiments were in line with this general hypothesis provides some indirect support to the validity of the findings of our first experiment. Furthermore, Experiment 2 was a scenario study; hence one may wonder whether the same results would have been found if people actually had experienced the scenario instead of just imagining it. By the same logic, we argue that the corresponding findings of Experiment 1 provide us with some indirect support for the validity of Experiment 2. Thus, viewed separately the two studies each have some drawbacks. However, taken together we believe they provide a strong case for the theoretical arguments laid out in this article.

To sum up, we have argued and showed that there are situations in which people can be strongly affected by procedural justice in encounters with outgroup authorities. However, we have also argued that reactions to outgroup authorities' procedures vs. ingroup authorities' procedures can differ substantially because of different justice concerns. In encounters with ingroup authorities, people are mainly concerned about their relationship with the authority. In encounters with outgroup authorities, however, people are mainly concerned about their outcomes. As a consequence, in order for a procedure to strongly affect people's reactions to outgroup authorities' decisions, the available outcome information should be ambiguous. When this is the case, as in our experiments, people can use information concerning the fairness or favourability of the procedure to predict or to evaluate their outcome. Thus, although the motive behind procedural concerns in encounters with outgroup authorities may be qualitatively different than in encounters with ingroup authorities, fair (or favourable) treatment can be an issue of great importance also when faced with an outgroup authority.

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