

## Group Belongingness and Procedural Justice: Social Inclusion and Exclusion by Peers Affects the Psychology of Voice

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The authors focus on the relation between group membership and procedural justice. They argue that whether people are socially included or excluded by their peers influences their reactions to unrelated experiences of procedural justice. Findings from 2 experiments corroborate the prediction that reactions to voice as opposed to no-voice procedures are affected more strongly when people are included in a group than when they are excluded from a group. These findings are extended with a 3rd experiment that shows that people who generally experience higher levels of inclusion in their lives respond more strongly to voice as opposed to no-voice procedures. It is concluded that people's reactions to procedural justice are moderated by people's level of inclusion in social groups.

Social justice is a fundamental norm in everyday life. People are strongly affected by acts that they perceive to be fair or unfair (Folger, 1984). Social justice therefore is a key issue to the understanding of social behavior, rightfully leading social psychologists to study questions such as what people perceive as fair and how perceived fairness affects people's reactions (for an overview, see Lind & Tyler, 1988). A major orientation in social psychological research on social justice is how people react to the perceived fairness of decision-making processes. This study of procedural justice (Thibaut & Walker, 1975) is an important topic in social psychology, as research over the past 25 years has shown that perceived procedural justice has the potential to strongly affect a wide range of people's perceptions and behaviors in many social

situations (for overviews, see Brockner & Wiesenfeld, 1996; Cropanzano, Byrne, Bobocel, & Rupp, 2001; Cropanzano, Rupp, Mohler, & Schminke, 2001; Folger & Cropanzano, 1998; Lind & Tyler, 1988; Tyler & Blader, 2000; Van den Bos & Lind, 2002).

An illustration of a widely known procedural justice phenomenon is the finding that people evaluate procedures that allow them an opportunity to voice their opinions in decision-making processes to be more fair than procedures that do not allow them such an opportunity (Folger, 1977; Folger, Rosenfield, Grove, & Corkran, 1979; cf. Brockner et al., 1998; Van den Bos, Wilke, & Lind, 1998; Van Prooijen, Van den Bos, & Wilke, 2002). Voice procedures often exert such positive effects even if it is clear to recipients that their opinions cannot affect the final decision (see, e.g., Lind, Kanfer, & Earley, 1990). Furthermore, voice procedures positively influence several of people's perceptions and behaviors, such as satisfaction ratings, relational judgments, protest intentions, and task performance (for overviews, see Folger & Cropanzano, 1998; Lind & Tyler, 1988; Tyler & Blader, 2000; Tyler & Lind, 1992). These effects of voice are among the most frequently replicated effects in social psychology (Brockner et al., 1998) and therefore constitute a crucial element in theorizing on procedural justice.

Because procedural justice essentially is a social phenomenon (Tyler & Blader, 2000; Tyler & Lind, 1992), it has been argued that information about people's group membership contributes substantially to social psychologists' understanding of the psychology of voice (Lind & Tyler, 1988). Several theories have emphasized the pivotal role of group membership in procedural justice processes (for overviews, see Cropanzano et al., 2001; Folger &

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This research was supported by the Netherlands Organization for Scientific Research (the NWO) Project Number 575-31-015. We are grateful to Anja Diender, Katrien Hugenholtz, Daniëlle Nooteboom, Irma Obdeijn, and Mileen Verpoorten for their assistance in collecting the data of Experiment 2 and to Gaby Toeset for her assistance in collecting the data of Experiment 3.

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Cropanzano, 1998; Lind & Tyler, 1988; Tyler & Blader, 2000; Tyler & Lind, 1992; Tyler & Smith, 1998; Van den Bos & Lind, 2002; Van Prooijen, Van den Bos, & Wilke, in press). For example, it has been shown that procedural justice affects people's reactions more strongly if the procedures have been provided by in-group rather than by out-group authorities (Smith, Tyler, Huo, Ortiz, & Lind, 1998; Ståhl, Van Prooijen, & Vermunt, 2004) and that people who identify strongly with a group are affected more strongly by procedural justice than people who do not identify strongly with a group (Huo, Smith, Tyler, & Lind, 1996). Furthermore, procedural justice has been shown to be more important to people in within-culture interactions than in between-cultures interactions (Tyler, Lind, Ohbuchi, Sugawara, & Huo, 1998). These empirical findings show that different aspects of group membership moderate people's reactions to procedural justice, which suggests a fundamental relation between group membership and procedural justice.

In the literature, the most prominent theoretical perspective on procedural justice that has tried to explain these group membership effects is the relational model of authority (Tyler & Lind, 1992; cf. Lind & Tyler, 1988). One of the basic assumptions of this model is that group memberships are important to people because they provide a solid basis for, among other things, a sense of belonging, security, self-esteem, social identity, and validation of one's worldviews (Lind & Tyler, 1988; cf. Tajfel & Turner, 1979; see also Baumeister & Leary, 1995; Brewer, 1991). People therefore want to know to what extent they are perceived as respected members in valued social groups. Because people perceive group authorities as representative for the group (Tyler & Lind, 1992), people derive important information about their group membership from the way that group authorities treat them. For example, it has been argued that fair procedures may convey symbolic messages of inclusion in a group, whereas unfair procedures may convey symbolic messages of exclusion from a group (Lind, 2001; Lind & Tyler, 1988). If group authorities treat people with dignity, people infer that they are respected members within the group and that there is good reason to have pride in their group membership. If group authorities treat people rudely, people infer that they are not well-respected members within the group and that there is no valid reason to have pride in their group membership (Tyler, Degoe, & Smith, 1996).

Although theorizing on the relational model (Tyler & Lind, 1992; cf. Lind & Tyler, 1988) and subsequent empirical work within this tradition (e.g., Huo et al., 1996; Smith et al., 1998; Ståhl et al., 2004; Tyler et al., 1998) has led to an increased understanding of group memberships and procedural justice, we argue here that there is also at least one considerable lacuna in this domain. That is, in our opinion one of the most fundamental aspects of group membership has not been sufficiently studied in relation to procedural justice: Whereas the relational model has predominantly focused on people's reactions to the actions of group *authorities* (Tyler & Lind, 1992), reactions to the actions of *peers* have been largely neglected in procedural justice research. One of the reasons why we think this is important is because it may well be argued that people's group membership often is determined by the extent to which people are socially included or excluded by their peers (e.g., Gardner, Pickett, & Brewer, 2000; Williams, 1997; Williams, Cheung, & Choi, 2000). People sometimes can

only become and remain members of a group if their fellow group members approve of it. To illustrate, we often can become and remain members of a group of friends only with a group that accepts us as friends and not with groups that have rejected us. The extent to which people are included in social relationships or groups has been labeled "group belongingness" and also has been referred to as "level of inclusion" (Baumeister & Leary, 1995). People's group belongingness (or level of inclusion) can be regarded as a specific but central aspect of people's group membership and may often be a prerequisite for people's social relationships and group memberships in everyday life. In the current article, we argue that level of inclusion may have consequences for people's reactions to procedural justice. In the following, we describe the psychology of group belongingness, integrate this with the procedural justice literature, and derive our hypotheses.

### Group Belongingness and Procedural Justice

Why do people want to affiliate with other people? One of the answers to this question is the theory that humans have a natural drive to form and maintain at least a number of positive, affective, and stable interpersonal bonds. Baumeister and Leary (1995) referred to this fundamental human motivation to affiliate with others as the need to belong. According to these authors, people have to be included in meaningful social relationships to satisfy their need to belong. The theory of the need to belong has its roots in evolutionary theories, as the desire to form and maintain relations with others may have both survival and reproductive benefits (Baumeister & Leary, 1995). The need to belong has been argued to be universal, to produce effects readily and under a huge variety of conditions, and to affect various perceptions and behaviors. Being deprived from a satisfactory level of inclusion may be cause of several negative effects, such as anxiety, emotional distress, loneliness, and health problems (for an overview, see Baumeister & Leary, 1995; see also Leary & Baumeister, 2000).

One of the most prominent threats to group belongingness is social exclusion. It has been argued that being excluded by valued social groups ranks among the most aversive of human experiences (e.g., Gardner et al., 2000; Nezlek, Kowalski, Leary, Blevins, & Holgate, 1997; Williams, 1997; Williams et al., 2000; Williams & Sommer, 1996). The study of social exclusion has therefore received considerable attention from social psychologists in recent years. Research has shown that being socially excluded is associated with strong negative emotions, such as anxiety, depression, hostility, jealousy, and loneliness (Nezlek et al., 1997; cf. Baumeister & Tice, 1990; Leary, 1990). Furthermore, it has been argued that social exclusion is reflected in people's self-esteem (Leary & Baumeister, 2000; Leary, Tambor, Terdal, & Downs, 1995), that social exclusion promotes aggressive behavior (Twenge, Baumeister, Tice, & Stucke, 2001), and that negative reactions to social exclusion are very similar across cultures (Hazan & Shaver, 1994).

Several authors have argued that social inclusion and exclusion are related to acts of fairness or unfairness. For example, Opatow (1990) argued that every individual has a psychological boundary for social justice, to which she referred to as the "scope of justice" (Deutsch, 1974). According to Opatow, people tend to apply general principles of fairness relatively more to those who are included in their scope of justice (e.g., those who are included in

their own social category or group) than to those who are excluded from their scope of justice. As a consequence, harming people who are excluded from the scope of justice is not necessarily perceived to be unfair by the actor; indeed, it may even seem to be the appropriate or desirable type of behavior. This phenomenon is labeled “moral exclusion”, and it illustrates that social exclusion may sometimes imply exclusion from basic moral rights such as fairness (Huo, 1997). Moral exclusion may be an important psychological factor to explain a wide range of collective human tragedies (Opatow, 1990), such as the Holocaust and the ethnic purifications in former Yugoslavia.

The moral exclusion literature takes the perspective of the actor by focusing on how fairly or unfairly actors may behave toward someone that they have morally included or excluded, and it suggests that social inclusion and exclusion may indeed be related to acts of fairness or unfairness. In the current article, we do not focus on the moral exclusion construct but focus on the relation between social exclusion and procedural justice from a different angle. That is, empirical research has hitherto neglected how people react to procedural (in)justice when they have been socially included or excluded by their peers. In the current research we would like to try to fill this void. Building on the relational model (Lind & Tyler, 1988; Tyler & Lind, 1992) and empirical findings within the tradition of the relational model (Huo et al., 1996; Smith et al., 1998; Ståhl et al., 2004; Tyler et al., 1998), we argue here that people’s own level of inclusion in a group has important consequences for how people react to procedural fairness. More specifically, the relational model has argued that fair procedures from authorities convey symbolic messages of inclusion, because procedural fairness implies that one is a respected and valued member within a group (Lind & Tyler, 1988; Tyler & Lind, 1992). Thus, the perceived fairness of the procedures adopted by authorities may affirm people’s level of inclusion in social groups. In correspondence with this perspective, fair procedures can provide positive and stable intragroup relationships, but unfair procedures can easily lead groups or relationships to disintegrate (Lind & Tyler, 1988). On the basis of this, we argue here that one of the reasons why group memberships and procedural justice are related is because procedural fairness can be functional to maintain people’s level of inclusion in social groups and to avoid the negative consequences that are associated with social exclusion.

On the basis of this line of reasoning, it can be expected that people respond differently to procedures following an experience of inclusion by peers than following an experience of exclusion by peers. We suppose that an experience of social inclusion by peers is cognitively and behaviorally associated with social norms that are relevant to one’s level of inclusion (Baumeister & Leary, 1995; cf. Leary & Baumeister, 2000). Furthermore, a social norm that is very relevant to one’s level of inclusion is procedural justice, given that procedural justice may convey symbolic messages of inclusion (Lind & Tyler, 1988; Tyler & Lind, 1992). As a consequence, we argue that people should be relatively more sensitive to fair procedures (such as voice procedures) when they experience high as opposed to low levels of inclusion. We therefore predicted that participants would be affected more strongly by voice as opposed to no-voice procedures following inclusion in a group by their peers than following exclusion from a group by their peers.

To investigate the effects of voice under varying levels of

inclusion, we conducted three experiments. We now introduce the first two experiments, in which we directly manipulated social inclusion versus exclusion by peers. In these first two experiments reported, participants were members of a group. In both experiments, we raised the possibility that participants could be excluded from the group: Participants were informed that either they or one other specific participant would be excluded from the group and that the remaining group members would choose which of these two members would be included and which would be excluded. We then manipulated group belongingness: Participants were either included in the group or excluded from the group, or it was not yet known whether they would be included or excluded. This manipulation of group belongingness was followed by a manipulation of procedure: We varied whether the participants were or were not allowed an opportunity to voice their opinion in a decision-making process. To make sure that our experimental manipulations were orthogonal to each other and that the procedure manipulation was perceived similarly in the three group-belongingness conditions, the authority did versus did not allow participants to voice their opinions about a decision that was unrelated to participants’ group membership and the group-belongingness manipulation, and the authority was not a member of the participant’s group. Thus, people received voice or not about a decision that was equally relevant for included and excluded participants.

For tentative purposes, we also induced a condition in which it was not yet known whether the participant would be included or excluded. Current theoretical perspectives can lead to two possible predictions about this condition. The first possible prediction is based on the observation that participants in the not-yet-known conditions are still members of the group. This would imply that participants would perceive themselves to be more included in the group than participants in the exclusion condition. Furthermore, these participants may perceive themselves to be less included in the group than would those in the inclusion condition, as it is unclear whether the former participants can remain group members in the future. In other words, participants may experience the highest level of inclusion in the inclusion condition, a somewhat lower level of inclusion in the not-yet-known condition, and the lowest level of inclusion in the exclusion condition. It can therefore be argued that reactions to procedures of participants in the not-yet-known condition would be somewhat weaker than in the inclusion condition and somewhat stronger than in the exclusion condition.

However, an alternative prediction would state that not yet knowing whether one will be included or excluded enhances feelings of uncertainty. It has been argued that subjective human uncertainty can increase the need to be categorized into social groups (Hogg & Abrams, 1993; Hogg & Mullin, 1999) and is thus interwoven with people’s group memberships. Furthermore, uncertainty is a crucial element in social-cognitive models of procedural justice, such as fairness heuristic theory (for overviews, see Lind, Kulik, Ambrose, & De Vera Park, 1993; Van den Bos, Lind, Vermunt, & Wilke, 1997; Van den Bos, Lind, & Wilke, 2001) and the related uncertainty management model (Van den Bos, 2001; Van den Bos & Lind, 2002). Theoretical and empirical work following these frameworks has suggested that people are especially affected by fairness in situations that make them feel

uncertain (for a review, see Van den Bos & Lind, 2002). For example, it has been demonstrated that the perceived fairness of procedures exert stronger effects on people's reactions when people are uncertain whether an authority can be trusted than when they are certain that the authority can or cannot be trusted (see Van den Bos, Wilke, & Lind, 1998). Furthermore, it has been shown that ratings of outcome fairness are affected more strongly by perceived procedural justice if people are uncertain whether the outcome they have received is fair or unfair than when they are certain about outcome fairness (Van den Bos et al., 1997). On the basis of this line of work, it can be expected that participants in the not-yet-known conditions will show stronger reactions to voice as opposed to no-voice procedures than in the conditions in which it is already known whether one has been included or excluded.

### Experiment 1

In the first experiment, we tested our hypotheses by means of a scenario experiment. In the scenario experiment, participants were asked to imagine that they were members of a group. Participants were further told that, because of external causes, 1 of the group members had to leave the group. To determine who had to be excluded, 2 members were nominated for exclusion by means of a lottery. The other members would choose which of these 2 members would have to leave the group. Participants in all conditions were nominated for exclusion. We then varied whether the participant was subsequently included by his or her peers, whether the participant was excluded by his or her peers, or whether the election was not yet held. Furthermore, we manipulated procedure by varying whether the experimenter did or did not allow participants an opportunity to voice their opinions about a decision that was unrelated to the group-belongingness manipulation.

Several authors have argued that it is important to measure people's ratings of satisfaction following experiences of procedural justice (Lind & Tyler, 1988; Tyler & Lind, 1992; Van den Bos & Miedema, 2000; Van den Bos & Van Prooijen, 2001; Weiss, Suckow, & Cropanzano, 1999). Furthermore, previous studies have shown that measures of satisfaction are often highly sensitive to procedural justice manipulations in experimental settings, and satisfaction ratings therefore are very common dependent variables in procedural justice experiments (see, e.g., Van den Bos & Miedema, 2000; Van den Bos, Peters, Bobocel, & Ybema, 2003; Van den Bos & Van Prooijen, 2001; Van den Bos, Wilke, & Lind, 1998; Van den Bos, Wilke, Lind, & Vermunt, 1998; Van Prooijen et al., 2002). To link up with this previous research, we used participants' ratings of procedural satisfaction as main dependent measures.

### Method

*Participants and design.* We tested our hypotheses in a 3 (group belongingness: inclusion vs. exclusion vs. not yet known)  $\times$  2 (procedure: voice vs. no voice) design. Participants were 142 students at Leiden University (Leiden, the Netherlands; 31 men, 111 women) varying in age from 18 to 39 years. Participants voluntarily participated in the experiment after participating in other, unrelated experiments. Participants received 10 Dutch guilders for each hour that they participated in the experiments (1 Dutch guilder equaled U.S. \$0.50 at the time the studies reported in this article were conducted).

*Experimental procedure.* On arrival at the laboratory, participants were led to separate cubicles. In the cubicles, participants found computer equipment on which we presented the stimulus information. Participants were asked to imagine the following situation:

You are a member of a project group in a students' union. In the past, you have displayed a great effort for the students' union. You are therefore entitled to a once-only financial bonus of the executive committee. Your project group has a total of eight members. However, because of a new law it is necessary to decrease the number of members in your project group to seven members. In other words, one member has to leave the project group. Within the project group, there is some disagreement whether that person should be drawn by lots or chosen by means of a poll. Therefore a procedure is adopted in which both a lottery and a poll are held to exclude a member from the project group: First, two persons are drawn by lots. These two persons are nominated to be excluded from the project group. The other six members will subsequently choose who of these two nominated persons does or does not have to leave the project group.

This was followed by the manipulation of group belongingness. Participants read the following sentences:

After lots are drawn, it turns out that you are nominated for exclusion. Either you or another member will have to leave the project group. *Following the poll you are included in the project group/Following the poll you are excluded from the project group/The results of the poll are not yet known and it will therefore be unclear for a while whether you are included in or excluded from the project group.*

After the manipulation of group belongingness we induced the manipulation of procedure:

As noted before, for the work you have done in the past for the students' union you are entitled to a once-only financial bonus from the executive committee. The executive committee gives you *voice / no-voice* about the magnitude of this financial bonus.

After this, participants responded to the questions that constituted the dependent variables. Specifically, participants answered the following two items (cf. Van den Bos et al., 2001): "How satisfied are you with the way you were treated?" (1 = *very unsatisfied*, 7 = *very satisfied*) and "How happy are you with the way you were treated?" (1 = *not very happy*, 7 = *very happy*). These two items were highly correlated ( $r = .95$ ,  $p < .01$ ), and we averaged them to form a procedural satisfaction scale ( $\alpha = .98$ ).

### Results

When included as an independent variable in the analyses, gender of the participants did not show a main effect or interaction effects with the other independent variables on procedural satisfaction ratings. We therefore dropped gender as an independent variable in the statistical analyses reported here.

A 3  $\times$  2 analysis of variance (ANOVA) on the procedural satisfaction scale showed main effects of both procedure,  $F(1, 136) = 94.28$ ,  $p < .01$ ,  $\eta^2 = .41$ , and group belongingness,  $F(2, 136) = 3.70$ ,  $p < .03$ ,  $\eta^2 = .05$ . More important for the current line of reasoning was that this analysis also yielded the predicted interaction effect,  $F(2, 136) = 3.46$ ,  $p < .04$ ,  $\eta^2 = .05$ . The cell means and standard deviations are described in Table 1. To more directly test our hypothesis, we contrasted the effect of procedure in the inclusion condition with the effect of procedure in the exclusion condition. We thus performed an interaction contrast analysis to further establish whether the effect of procedure was

Table 1  
*Means and Standard Deviations of Participants' Procedural Satisfaction Ratings as a Function of Group Belongingness and Procedure, Experiment 1*

Procedure	Group belongingness					
	Inclusion		Exclusion		Not yet known	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Voice	4.86 <sub>a</sub>	1.82	3.31 <sub>b</sub>	1.83	4.46 <sub>a</sub>	1.95
No voice	1.89 <sub>c</sub>	1.14	1.81 <sub>c</sub>	0.84	1.69 <sub>c</sub>	0.83

*Note.* Means are on 7-point scales, with higher values indicating more positive ratings of procedural satisfaction. Means with no subscript in common differ as indicated by a least significant difference test for multiple comparisons between means ( $p < .05$ ).

significantly stronger in the inclusion condition than in the exclusion condition. As expected, results showed a significant interaction contrast effect,  $F(1, 136) = 5.90, p < .02, \eta^2 = .04$ . In correspondence with Hypothesis 1, the effect of procedure was stronger in the inclusion condition than in the exclusion condition: Participants' ratings of procedural satisfaction were indeed affected more strongly by voice as opposed to no-voice procedures when they were included in a group,  $F(1, 136) = 49.41, p < .01; \eta^2 = .27$ , than when they were excluded from a group,  $F(1, 136) = 12.35, p < .01; \eta^2 = .08$ .

In the not-yet-known condition, we also found a significant procedure simple main effect,  $F(1, 136) = 40.12, p < .01; \eta^2 = .23$ . This effect size was somewhat bigger than the procedure effect size in the exclusion condition and was approximately equal to the procedure effect size in the inclusion condition. Furthermore, it can be noted here that simple main effects showed that the group-belongingness manipulation predominantly influenced the procedural satisfaction ratings of participants who had received a voice procedure,  $F(2, 136) = 7.29, p < .01; \eta^2 = .10$ , and not of those who had received a no-voice procedure,  $F < 1$ . We come back to this issue in the General Discussion.

### Discussion

Findings of Experiment 1 showed that inclusion in a group leads to stronger effects of voice as opposed to no-voice procedures on participants' ratings of procedural satisfaction than exclusion from a group. The findings are supportive for our main hypothesis and suggest that procedural fairness is relatively more impactful in situations in which people are included in a group by their peers than in situations in which they are excluded from a group by their peers.

The findings did not support the fairness heuristic and uncertainty management models' prediction that procedural satisfaction ratings would be particularly strongly affected by voice as opposed to no-voice procedures when it was not yet known whether the participant was included or excluded. The results showed a strong procedure effect on participants' procedural satisfaction ratings in the not-yet-known condition, but this effect was not stronger than in the inclusion condition. Although not entirely conclusive, the findings in the not-yet-known condition are relatively more consistent with the perspective that participants in the not-yet-known

condition may to some extent perceive themselves as included, leading to a procedure effect that is somewhat stronger than the procedure effect in the exclusion condition (in fact, the difference between the not-yet-known and exclusion conditions was even significant in Experiment 1; see Table 1).

Before drawing any strong conclusions about the results of Experiment 1, it is important to replicate them. After all, in Experiment 1 participants responded to variations in group belongingness and procedural justice in a hypothetical situation. On the basis of these findings, we do not know how people would respond if they directly experienced variations in group belongingness and voice procedures. We therefore tested our hypotheses again in a second experiment in which participants directly experienced variations in group belongingness and procedure.

### Experiment 2

In Experiment 2, we investigated our hypotheses by using a laboratory group membership. Some of the most crucial group membership studies in the procedural justice domain have used existing group memberships, such as university affiliations (e.g., Smith et al., 1998; Ståhl et al., 2004), organizations (e.g., Huo et al., 1996), or cultural groups (Tyler et al., 1998). The use of a laboratory group would therefore be worthwhile to extend these previous studies by assessing whether group membership effects in procedural justice may also be found in laboratory group situations. Furthermore, in the current research a laboratory group paradigm makes it possible to get a sense of the robustness of our findings. After all, replication in a situation that is substantially different from the paradigm in Experiment 1 suggests that the findings are not specific for the group setting of Experiment 1 but may generalize to other group contexts. Furthermore, laboratory group paradigms constitute controlled methods to experimentally study group-belongingness effects, as such groups allow researchers to rule out many natural within-group differences (Brewer, 1979).

Participants were placed in a laboratory group called the blue team (cf. Van Leeuwen, Van Knippenberg, & Ellemers, 2003). All participants conducted individual tasks in this group. Participants were told that, to make the size of the group comparable to other groups, 1 member of the group had to be excluded. This member would still conduct the individual tasks but would no longer be a member of the blue team. In correspondence with Experiment 1, 2 participants were drawn by chance. In all conditions, the participant was nominated for exclusion from the blue team, and we varied whether the participant was included in or excluded from the blue team by their peers. Additionally, we induced a condition in which it was not yet known whether the participant would be included or excluded. Following this group-belongingness manipulation, participants did versus did not get an opportunity to voice an opinion in a decision-making process. To make the procedure manipulation orthogonal to the group-belongingness manipulation, participants did versus did not receive an opportunity to voice an opinion about a decision that was unrelated to the group-belongingness manipulation.

In correspondence with Experiment 1, we wanted to have an indication of participants' procedural satisfaction ratings. We therefore measured the extent to which participants were satisfied with the procedure. We also wanted to establish whether our

findings would generalize to measures that are typically assessed in procedural justice research: participants' procedural justice judgments. We therefore also asked participants how fair, just, and appropriate they considered the decision-making procedure to be (Lind & Tyler, 1988; Tyler & Lind, 1992; cf. Van den Bos & Van Prooijen, 2001).

### Method

*Participants and design.* We again tested our hypothesis in a 3 (group belongingness: inclusion vs. exclusion vs. not yet known)  $\times$  2 (procedure: voice vs. no-voice) factorial design. A total of 124 students at Leiden University (47 men, 77 women), varying in age from 17 to 53 years, voluntarily participated in the experiment. The experiment was preceded and followed by other, unrelated experiments. Participants were paid 10 Dutch guilders for each hour that they participated in the experiments.

*Procedure.* On arrival at the laboratory, participants were led to one of eight separate cubicles. In each cubicle, participants found computer equipment from which they read and responded to the stimulus information. The experiment was presented as a study on how people perform tasks in groups. Furthermore, we suggested the presence of 7 other participants, who were all in one of the other seven cubicles. Participants were informed that all 8 participants that were present in the laboratory would perform tasks in a group. This group was referred to as the blue team for the rest of the experiment, and the group was assigned a blue team logo that appeared on the computer screen (cf. Van Leeuwen et al., 2003). Every member received an individual identification letter ranging from A to H (in reality, all participants were told they were Member C), and we suggested that, by means of the computer network, the experimenter could send messages to all members of the blue team during the course of the experiment. (In reality, all stimulus information was preprogrammed, an experimental procedure none of the participants objected to on debriefing.)

After this, the experimental procedure was outlined to the participants. The blue team would perform tasks in one practice round of 2 min and two work rounds, all rounds taking up 5 min. The team score on the task would be computed by adding the individual scores of the individual group members. Of special importance was the team score on the second work round: This team score would be compared with the scores on the second work round of other teams, which either had previously participated in the experiment or would participate later in the experiment. Furthermore, in the second work round all participants would be assigned a minimum number of tasks that a participant had to complete individually within the 5 min. To enhance comprehension of the experimental procedure, we posed five practice questions. If participants gave a wrong answer to a question, the correct answer was disclosed, and the main characteristics of the experimental procedure were repeated.

After this, the tasks were explained to the participants. Figures would be presented on the upper right side of the monitor. Each figure consisted of 36 squares, and each square showed one of eight distinctive patterns. One of these patterns was presented at the upper left side of the computer screen, and participants had to count the number of squares with this pattern in the figure at the right side of the monitor. After the participants had indicated the correct number, a new square was presented. This procedure was repeated for 2 min in the practice round and for 5 min in the first work round. In each round, the time remaining was presented at the lower left side of the monitor and the number of tasks completed (i.e., the number of figures the participants had counted during the round) was presented at the lower right side of the monitor. At the end of the first work round, all participants were informed that all members of the blue team had completed a comparable number of tasks. Furthermore, we asked participants the following question: "How good are your fellow group members in conducting the tasks compared to how good you are?" (1 = *much worse*, 7 = *much better*).

After the first work round had ended, participants were informed that previous teams all consisted of 7 members. Because the blue team consisted of 8 members and the team score on the second work round had to be comparable to the team scores of other teams, 1 of the members had to be excluded from the blue team. The excluded participant would still finish the study and perform the second work round. Furthermore, the excluded person would (in correspondence with the participants who were not excluded from the blue team) also be assigned an individual minimum number of tasks to be completed in the second work round. However, the excluded person would no longer be a member of the blue team and his or her individual score on the second work round would not count for the team score.

Next, we explained to participants how 1 of the members would be excluded from the blue team: The computer would draw 2 members by chance. These 2 members would be nominated for exclusion. After this, an election would be held: The other 6 members of the blue team would all choose 1 of the nominated members by means of the computer network. The nominated member that was chosen by most other team members would be excluded from the blue team. To ensure comprehension of this part of the experimental procedure, we then posed several dichotomous questions, of which the following is most relevant for the current purposes: "Should the person who is excluded finish the study and the second work round alone, and not as a member of the blue team?" (1 = *yes*, 2 = *no*).

After this, the manipulation of group belongingness took place. All participants were drawn by the computer and thus nominated for exclusion. In the inclusion condition, the election was held and the participant was informed that he or she was not chosen and therefore included in the blue team. In the exclusion condition, the election was held and the participant was informed that he or she was chosen and therefore excluded from the blue team.<sup>1</sup> In the not-yet-known condition, participants were informed that the election was not yet held and would be held later on in the study.

The manipulation of procedure was then administered to the participants. In the voice condition, participants were informed that they were allowed an opportunity to voice an opinion about the individual number of tasks they had to complete in the second work round (cf. Lind et al., 1990). These participants were asked to type in their opinions about the minimum number of tasks they had to complete within 5 min. In the no-voice condition, participants were informed that they were not allowed an opportunity to voice their opinions about the individual number of tasks they had to complete in the second work round. These participants were not asked to type in their opinion about the number of tasks they had to complete within 5 min.

Participants were then asked to answer the questions that constituted the dependent variables and the manipulation checks. Our main dependent measures consisted of the following three procedural justice judgments (cf. Van den Bos & Van Prooijen, 2001): "How fair was the procedure used to determine the number of tasks you had to complete in the second work round?" (1 = *very unfair*, 7 = *very fair*), "How just was the procedure used to determine the number of tasks you had to complete in the second work round?" (1 = *very unjust*, 7 = *very just*), and "How appropriate was the procedure used to determine the number of tasks you had to complete in the second work round?" (1 = *very inappropriate*, 7 = *very appropriate*). These three items were averaged into a reliable procedural justice scale ( $\alpha = .95$ ). Furthermore, to assess participants' satisfaction with the procedure, we asked the following question: "How satisfied are you with the

<sup>1</sup> We made sure not to provide participants with explicit reasons why the other participants did or did not choose them to be excluded from the blue team. Providing participants with explicit reasons why they were included or excluded by their peers would confound the group-belongingness manipulation with justifications, which is another procedural justice operationalization, different from the voice concept we are trying to focus on here (e.g., Folger & Martin, 1986; Folger, Rosenfield, & Robinson, 1983).

procedure used to determine the number of tasks you had to complete in the second work round?" (1 = *very unsatisfied*, 7 = *very satisfied*).

As a first check on the group-belongingness manipulation, we asked participants to what extent they agreed with the following statements (1 = *totally disagree*, 7 = *totally agree*): "I could remain a member of the blue team," "I could *not* remain a member of the blue team" (recoded), "After I was nominated by the computer, my fellow team members chose me for exclusion from the blue team," and "After I was nominated by the computer, my fellow team members did *not* choose me for exclusion from the blue team" (recoded). These four items were averaged into a group-belongingness check scale ( $\alpha = .82$ ).

Furthermore, to check the not-yet-known conditions, we asked participants to what extent they agreed with the following statements (1 = *totally disagree*, 7 = *totally agree*): "It was not yet known whether I could stay a member of the blue team," and "After I was nominated by the computer the election was not yet held." These two items were highly correlated ( $r = .58$ ,  $p < .01$ ), and we averaged them into a not-yet-known scale ( $\alpha = .74$ ).

Finally, to check the procedure manipulation, we asked participants the following two questions (1 = *not at all*, 7 = *very much*): "To what extent could you voice an opinion about the number of tasks you had to complete in the second work round?" and "To what extent did the experimenter pay attention to your opinion about the number of tasks you had to complete in the second work round?" These two items were highly correlated ( $r = .80$ ,  $p < .01$ ), and we averaged them into a procedure check scale ( $\alpha = .87$ ). Additionally, we posed the following question: "Do you think that other participants were allowed to voice their opinions?" (1 = *certainly not*, 7 = *certainly*). After this, participants were informed that the experiment had ended. Participants were fully debriefed, thanked, and paid for their participation.

## Results

When included as an independent variable in a multivariate analysis of variance (MANOVA) on procedural justice judgments and procedural satisfaction ratings, gender of the participants yielded a significant three-way interaction with procedure and group belongingness at the multivariate level,  $F(2, 112) = 4.04$ ,  $p < .03$ ;  $\eta^2 = .07$ . However, this three-way interaction was nonsignificant at the univariate level for both procedural justice judgments,  $F(2, 112) = 2.21$ ,  $p > .11$ , and procedural satisfaction ratings,  $F < 1$ . Furthermore, gender did not show any other significant main effects or interactions with the other independent variables on the manipulation checks and dependent variables reported later. We therefore dropped gender in the statistical analyses reported.

**Manipulation checks.** We checked the experimental manipulations with  $3 \times 2$  ANOVAs. On the group-belongingness check scale, we found a main effect of group belongingness only,  $F(2, 118) = 311.07$ ,  $p < .01$ ;  $\eta^2 = .84$ . As indicated by a least significant difference (LSD) test for multiple comparisons between means, with the group-belongingness manipulation as the independent variable, participants in the exclusion condition perceived themselves to be significantly less included in the blue team ( $M = 1.99$ ,  $SD = 1.12$ ) than participants in the inclusion condition ( $M = 6.63$ ,  $SD = .74$ ;  $p < .01$ ). Furthermore, the mean of the not-yet-known condition ( $M = 4.12$ ,  $SD = .52$ ) was lower than the mean in the inclusion condition ( $p < .01$ ) and higher than the mean in the exclusion condition ( $p < .01$ ). To summarize, participants in the inclusion conditions perceived themselves to be relatively more included in the blue team than participants in the not-yet-known and the exclusion conditions, and participants in the not-yet-known conditions perceived themselves to be relatively more

included in the blue team than participants in the exclusion conditions. These data thereby show that participants perceived the group-belongingness manipulation as intended and that the group-belongingness manipulation was successful in inducing the levels of inclusion that were intended with this manipulation.

On the not-yet-known scale, we found a significant main effect of group belongingness only,  $F(2, 118) = 97.73$ ,  $p < .01$ ;  $\eta^2 = .62$ . As indicated by an LSD test with the group-belongingness manipulation as the independent variable, participants in the not-yet-known conditions agreed more strongly with the statements that it was unknown whether they would be excluded ( $M = 6.36$ ,  $SD = 1.32$ ) than participants in the exclusion ( $M = 2.27$ ,  $SD = 1.68$ ) or inclusion conditions ( $M = 2.35$ ,  $SD = 1.55$ ;  $ps < .01$ ). Participants in the inclusion and exclusion conditions did not differ significantly in their reactions to these statements.

Finally, results on the procedure check scale showed a main effect of procedure only,  $F(1, 118) = 694.15$ ,  $p < .01$ ;  $\eta^2 = .86$ . Participants in the voice condition perceived more opportunities to voice their opinions ( $M = 5.46$ ,  $SD = 1.27$ ) than participants in the no-voice condition ( $M = 1.07$ ,  $SD = .40$ ). From these analyses, we can conclude that participants perceived the experimental manipulations as intended.

**Comparability judgments.** A  $2 \times 3$  ANOVA on the question of how good participants' fellow group members were in conducting the tasks compared with how good the participant was yielded no significant effects (overall  $M = 3.98$ ;  $SD = 0.28$ ). Furthermore, the overall mean did not differ significantly from the scale mean. This shows that participants in all conditions rated the task performance of their fellow team members to be comparable to their own task performance.

**Consequences of exclusion answers.** On the dichotomous question of whether the excluded person should finish the study and the second work round alone, and not as a member of the blue team, all 124 participants identified the correct answer (yes). This shows that all participants realized that being excluded implied that they should finish the study in isolation from the blue team and not as a group member.

**Voiced opinions.** We then conducted an ANOVA with the group-belongingness manipulation as independent variable on the opinions that participants in the voice condition expressed about the number of tasks they had to complete. This analysis showed no significant effect of group belongingness,  $F < 1$  (overall  $M = 56.77$ ;  $SD = 2.70$ ). This demonstrates that participants in the three group-belongingness conditions did not differ in their voiced opinions, as they indicated the same minimum number of tasks to complete in the second work round.

**Other participants' opinions.** We found a significant procedure main effect on the question of whether other participants were allowed to voice their opinions,  $F(1, 118) = 41.72$ ,  $p < .01$ ;  $\eta^2 = .26$ . Participants in the voice condition were more convinced that other participants could voice their opinions ( $M = 5.68$ ,  $SD = 1.59$ ) than participants in the no-voice condition ( $M = 3.71$ ,  $SD = 1.82$ ). Importantly, both the group belongingness main effect and the interaction were nonsignificant ( $Fs < 1$ ). This shows that participants' own level of inclusion did not affect participants' perceptions of whether other participants were allowed voice, suggesting that participants did not attribute their level of voice to their level of inclusion in the blue team.

*Dependent measures.* The cell means and standard deviations of participants' procedural justice judgments and procedural satisfaction ratings are depicted in Table 2. We first analyzed the dependent variables at the multivariate level. A  $3 \times 2$  MANOVA yielded a multivariate main effect of procedure,  $F(2, 117) = 768.68, p < .01; \eta^2 = .93$ . More important, this analysis also yielded the predicted multivariate interaction effect,  $F(2, 118) = 4.34, p < .02; \eta^2 = .07$ .

We then proceeded to test the univariate effects. On the procedural justice judgments, we found both a procedure main effect,  $F(1, 118) = 127.24, p < .01; \eta^2 = .52$ , and the predicted interaction effect,  $F(2, 118) = 3.43, p < .04; \eta^2 = .06$ . To more directly test our hypothesis, we contrasted the effect of procedure in the inclusion condition with the effect of procedure in the exclusion condition. In correspondence with Experiment 1, the results showed a significant interaction contrast effect,  $F(1, 118) = 6.52, p < .02; \eta^2 = .05$ . As predicted, participants' procedural justice judgments were affected more strongly by voice as opposed to no-voice procedures in the inclusion condition,  $F(1, 118) = 64.13, p < .01; \eta^2 = .35$ , than in the exclusion condition,  $F(1, 118) = 20.29, p < .01; \eta^2 = .15$ .

It can further be noted here that we found a significant procedure simple main effect on participants' procedural justice judgments in the not-yet-known condition,  $F(1, 118) = 50.59, p < .01; \eta^2 = .30$ . Furthermore, it can be noted here that the group-belongingness manipulation did not affect procedural justice judgments if participants had experienced a voice procedure,  $F < 1$ , but it did if participants had experienced a no-voice procedure,  $F(2, 118) = 3.45, p < .04; \eta^2 = .06$ .

The univariate analyses on participants' procedural satisfaction ratings also yielded a significant univariate procedure main effect,  $F(1, 118) = 97.76, p < .01; \eta^2 = .45$ , and a significant univariate interaction effect,  $F(2, 118) = 3.96, p < .03; \eta^2 = .06$ . The contrast of the procedure effect in the inclusion condition versus the procedure effect in the exclusion condition turned out to be significant,  $F(1, 118) = 7.63, p < .01; \eta^2 = .06$ . As predicted, voice as opposed to no-voice procedures exerted stronger effects

on people's procedural satisfaction ratings in the inclusion condition,  $F(1, 118) = 54.72, p < .01; \eta^2 = .32$ , than in the exclusion condition,  $F(1, 118) = 12.28, p < .01; \eta^2 = .09$ . These results revealed corroborative evidence for our hypothesis on both procedural justice judgments and procedural satisfaction ratings.

In the not-yet-known condition, we found a significant procedure simple main effect on participants' procedural satisfaction ratings,  $F(1, 118) = 39.10, p < .01; \eta^2 = .25$ . Furthermore, we note that the group-belongingness manipulation affected participants' procedural satisfaction ratings when they had experienced an opportunity to voice their opinions,  $F(2, 118) = 3.40, p < .04; \eta^2 = .05$ , but not when they had not experienced such an opportunity,  $F(2, 118) = 1.70, ns$ . We return to this latter finding in the General Discussion.

### Discussion

Both Experiments 1 and 2 corroborate our hypothesis that people's reactions to voice as opposed to no-voice procedures are affected more strongly when they are included in a group than when they are excluded from a group. We argue that these findings fill a missing link in social psychologists' understanding of the relation between group membership and procedural justice. That is, these findings reveal that social inclusion and exclusion by peers work in association with procedural justice to determine social reactions. Building on previous research on group membership and procedural justice (e.g., Huo et al., 1996; Smith et al., 1998; Ståhl et al., 2004; Tyler et al., 1998), the relational model (Tyler & Lind, 1992), the group-belongingness literature (Baumeister & Leary, 1995), and theories on moral exclusion (Deutsch, 1974; Opatow, 1990; cf. Huo, 1997), the findings presented here indicate that procedural fairness affects people's reactions more strongly when they are included in than when they are excluded from social groups by their peers. Experiment 1 found evidence for our prediction using clear-cut descriptions of social situations. Experiment 2 made evident that these findings may generalize to situations in which participants directly experience variations in group belongingness and voice procedures.

In correspondence with Experiment 1, the results in the not-yet-known condition again do not support fairness heuristic and uncertainty management model's predictions that people's reactions to voice as opposed to no-voice procedures are enhanced when people do not know whether they will be excluded. That is, the effect sizes in the not-yet-known condition on both procedural justice judgments and satisfaction ratings were somewhat bigger than the procedure effect sizes in the exclusion condition and were approximately equal to the procedure effect sizes in the inclusion condition (see Table 2). Although not entirely conclusive, these findings converge relatively more with the position that participants in the not-yet-known condition still belong to the blue team and thus perceive themselves as to some extent included (see the manipulation check findings), leading to a moderately strong procedure effect when compared with the inclusion and exclusion conditions.

Previous theorizing has tried to explain the relation between group membership and procedural justice by positing that fair procedures convey symbolic messages of inclusion in a specific and identifiable group (e.g., Huo et al., 1996; Lind & Tyler, 1988; Smith et al., 1998; Tyler & Lind, 1992). Contrary to what was

Table 2  
*Means and Standard Deviations of Participants' Procedural Justice Judgments and Procedural Satisfaction Ratings as a Function of Group Belongingness and Procedure, Experiment 2*

Dependent variable	Group belongingness					
	Inclusion		Exclusion		Not yet known	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Procedural justice judgments						
Voice	5.62 <sub>a</sub>	1.06	5.05 <sub>a</sub>	1.09	5.33 <sub>a</sub>	1.05
No voice	2.57 <sub>c</sub>	1.41	3.39 <sub>b</sub>	1.47	2.73 <sub>b,c</sub>	1.18
Procedural satisfaction ratings						
Voice	5.90 <sub>a</sub>	1.07	4.73 <sub>b</sub>	1.16	5.25 <sub>a,b</sub>	1.16
No voice	2.80 <sub>c</sub>	1.51	3.26 <sub>c</sub>	1.48	2.74 <sub>c</sub>	1.48

*Note.* Means are on 7-point scales, with higher values indicating more positive ratings on the dependent variable in question. Means with no subscript in common differ as indicated by a least significant difference test for multiple comparisons between means ( $p < .05$ ).

assumed before by this theorizing, in the current article, we argue that procedural justice may affirm people's level of belongingness and is therefore a social norm that is more relevant to people who experience high levels of belongingness. This proposition may imply that the relation between group belongingness and procedural justice has to do with a concern for a general sense of belongingness and not necessarily belongingness to a specific and identifiable group. Some first indication for this can be inferred from Experiment 2. More specifically, the findings obtained in Experiment 2 showed that the effects of voice as opposed to no-voice procedures were stronger following inclusion by peers than following exclusion by peers, even though the authority was not a member of the participant's group and the procedure had no direct relation with participants' group membership. This may suggest that the relation between group memberships and procedural justice may not necessarily be group specific but rather may have to do with a more fundamental human sense of whether belongingness needs are met (cf. Baumeister & Leary, 1995). To obtain more direct evidence for this proposition, we conducted a third experiment. This third experiment may additionally increase our confidence that people's level of inclusion was indeed the underlying construct that can explain the findings of Experiments 1 and 2.

### Experiment 3

In our third experiment, we tested the hypothesis that people who generally experience high levels of inclusion by peers in their lives show stronger reactions to voice as opposed to no-voice procedures than people who generally experience low levels of inclusion by peers in their lives. We therefore measured the extent to which participants felt included by peers in their lives with a 10-item Belongingness in Life Scale (e.g., items such as "I am typically someone who has a lot of friends"; see the *Method* section for details). The assessment of this Belongingness in Life Scale was presented as a first study (Study 1) that was unrelated to subsequent studies. After this, participants started with Study 2, in which they did versus did not receive an opportunity to voice their opinions in a decision-making process. In correspondence with Experiment 2, main dependent measures were participants' procedural justice judgments and satisfaction ratings.

### Method

*Participants and design.* We tested our hypothesis in a design in which we measured belongingness in life as a continuous independent variable and manipulated procedure by randomly assigning participants to voice as opposed to no-voice conditions. Participants were 100 students at the Free University Amsterdam (41 men, 59 women) varying in age from 18 to 30 years. The experiment preceded other, unrelated studies. Participants voluntarily participated in the experiments and received 5 Euros for their participation (1 Euro equaled U.S. \$1 at the time this study was conducted).

*Experimental procedure.* On arrival at the laboratory, participants were led to separate cubicles. In the cubicles, participants found computer equipment on which we presented the stimulus information. The experiment was introduced as two unrelated studies. Participants started with Study 1, which was presented as a study about "life experiences." The study constituted a questionnaire with a total of 35 items measured on 7-point scales. In this questionnaire, 25 items were filler items and 10 items measured the level of inclusion that participants experience in their lives. We refer to this 10-item scale as the Belongingness in Life scale. Partic-

ipants rated the extent to which the following 10 statements were characteristic for themselves (1 = *not at all*, 7 = *very much*): "I am typically someone who has a lot of friends," "There are only a few people that are really important to me" (recoded), "I easily get in touch with new people," "I have the feeling that a lot of people accept me," "I often am involved in the plans of other people," "There are a lot of people who care for me," "I often am alone" (recoded), "I often undertake things with other people," "There are a lot of people who know me," and "There are a lot of people that I can go to when I am in trouble."<sup>2</sup> These 10 items were averaged into a reliable Belongingness in Life scale ( $\alpha = .84$ ).

The first study then ended, and participants continued with Study 2. This second study was presented as a study on "people's perceptions of their own future." Participants were informed that they would do a writing exercise that had to do with their future. Furthermore, participants were told that, by means of the computer network, the experimenter could send messages to the participants during the experiment. Additionally, participants were informed that a lottery would take place among all participants. The winner of the lottery would receive a prize of 50 Euros. A total of 200 lottery tickets would therefore be divided among all participants, and some of these lottery tickets would be allocated to the participant.

Participants then started with the writing exercise about their future. Participants read a brief description of how their future may look in 20 years and were asked to imagine themselves in this possible future.<sup>3</sup> After this, participants were asked to write down what their thoughts and emotions would be if this possible future would really turn out to be their future in 20 years. Following this writing exercise, we induced the procedure manipulation. In the *voice condition*, participants allegedly received a message from the experimenter by means of the computer network that they would be allowed an opportunity to voice their opinion about the number of lottery tickets they thought they should receive. These participants subsequently typed in this number. In the *no-voice condition*, participants allegedly received a message from the experimenter by means of the computer network that they would not be allowed an opportunity to voice their opinion about the number of lottery tickets they thought they should receive. These participants did not type in this number. Following this manipulation, participants read that at the end of the experiment they would be informed how many lottery tickets they would receive.

Participants then responded to the questions that constituted the dependent variables and the manipulation checks. To assess participants' procedural justice judgments, we asked the following two questions: "How fair was the procedure used to divide the lottery tickets?" (1 = *very unfair*, 7 = *very fair*) and "How just was the procedure used to divide the lottery tickets?" (1 = *very unjust*, 7 = *very just*). These two items were highly correlated ( $r = .90$ ,  $p < .01$ ), and we averaged them into a reliable procedural justice scale ( $\alpha = .95$ ). To measure participants' satisfaction with the experimenter we asked the following two questions: "How satisfied are you with the experimenter in general?" (1 = *very unsatisfied*, 7 =

<sup>2</sup> Four items in our Belongingness in Life Scale were inspired by, and loosely based on, items in the Need to Belong Scale (Leary, Kelly, Cottrell, & Schreindorfer, 2001; we thank David de Cremer for providing us with a Dutch translation of the Need to Belong Scale). However, these items were modified in at least one important way: Whereas the Need to Belong Scale asks for people's *need to be* included in social groups, our Belongingness in Life Scale assesses people's perceptions of the extent to which they *actually are* included by their peers in social groups.

<sup>3</sup> The description of participants' possible future contained an additional manipulation: Participants imagined themselves in a future in which they were either very successful or very unsuccessful. This manipulation did not show any main or interaction effects on the manipulation check and dependent variables reported below, nor did it alter any of the reported findings. We therefore decided to drop this manipulation from further analyses and discussions.

very satisfied) and "How happy are you with the experimenter in general?" (1 = not very happy, 7 = very happy). These two items were highly correlated ( $r = .68, p < .01$ ), and we averaged them into a reliable satisfaction scale ( $\alpha = .81$ ).

To check the procedure manipulation, we asked the following two questions (1 = not at all, 7 = very much): "To what extent could you voice an opinion about the division of the lottery tickets?" and "To what extent did the experimenter pay attention to your opinion about the division of the lottery tickets?" These two items were highly correlated ( $r = .83, p < .01$ ), and we averaged them into a reliable procedure check scale ( $\alpha = .90$ ). After this, participants were fully debriefed, thanked, and paid for their participation.

## Results

To analyze the data, we conducted hierarchical regression analyses in which the main effect terms of belongingness in life and procedure were specified in Step 1 and the interaction term in Step 2. Following Aiken and West's (1991) recommendations, we centered participants' answers on the Belongingness in Life Scale and dummy coded the procedure manipulation. The interaction term was based on the product of the centered Belongingness in Life Scale and the dummy-coded procedure manipulation.

When included as an independent variable in the hierarchical regression analyses, gender of the participants did not show any main effects or interactions with the other independent variables on any of the manipulation checks or dependent variables reported later. We therefore dropped gender in the statistical analyses reported.

**Manipulation check.** A hierarchical regression analysis on the procedure check scale showed that only Step 1 (in which we tested for main effects) accounted for a significant amount of variance,  $\Delta R^2 = .60; F(2, 96) = 70.61, p < .01$ , and that Step 2 (testing for the interaction effect) did not lead to significantly improved regression results ( $F < 1$ ). Participants' answers on the procedure check scale were predicted by the procedure main effect only ( $\beta = .77, p < .01$ ). Participants in the voice condition perceived more opportunities to voice their opinions ( $M = 4.94, SD = 1.48$ ) than participants in the no-voice condition ( $M = 1.71, SD = 1.23$ ). From these results, we conclude that our procedure manipulation was induced successfully.

**Voiced opinions.** In the voice condition, participants' voiced opinions were uncorrelated with the Belongingness in Life Scale ( $r = .12, p > .40$ ; overall  $M = 33.86, SD = 61.47$ ). In correspondence with Experiment 2, participants' level of belongingness was unrelated to the opinions that they expressed.

**Dependent variables.** The results of the hierarchical regression analyses on the dependent variables are displayed in Table 3. The results showed that Step 1 accounted for a significant part of the variance on procedural justice judgments,  $\Delta R^2 = .07; F(2, 96) = 4.07, p < .03$ , and on satisfaction with the experimenter,  $\Delta R^2 = .18; F(2, 96) = 11.14, p < .01$ . As shown in Table 3, participants' answers on the dependent variables were predicted by significant and positive effects of the procedure manipulation. More important was that Step 2 accounted for a significant part of the variance beyond the variance of the main effects on participants' procedural justice judgments,  $\Delta R^2 = .05; F(1, 96) = 5.52, p < .03$ , and on their satisfaction with the experimenter,  $\Delta R^2 = .04; F(1, 96) = 5.21, p < .03$ . As shown in Table 3, we found significant and positive interaction terms on both our dependent measures. To

Table 3

Results From Hierarchical Regression Analyses: Procedural Justice Judgments and Satisfaction Ratings as a Function of Belongingness in Life and Procedure, Experiment 3

Regression step	Procedural justice judgments			Satisfaction ratings		
	$\beta$	$t(98)$	$\Delta R^2$	$\beta$	$t(98)$	$\Delta R^2$
Step 1						
Belongingness in life	-.03	-0.31		.04	0.40	
Procedure	.27	2.84**	.07*	.42	4.70**	.18**
Step 2						
Belongingness in Life						
× Procedure	.24	2.35*	.05*	.22	2.28*	.05*

Note. \*  $p < .05$ . \*\*  $p < .01$ .

further explore these interaction terms, we conducted simple slope analyses (Aiken & West, 1991). Among those high in belongingness in life, voice as opposed to no-voice procedures positively affected procedural justice judgments ( $\beta = .41, p < .01$ ) and satisfaction ratings ( $\beta = .55, p < .01$ ), whereas among those low in belongingness in life voice as opposed to no-voice procedures had no significant effects on procedural justice judgments ( $\beta = .09, p > .56$ ) or satisfaction ratings ( $\beta = .25, p > .10$ ). The interaction on procedural justice judgments is illustrated in Figure 1, and the interaction on satisfaction ratings is illustrated in Figure 2. These results indicate that, as predicted, the procedure manipulation had stronger effects on participants' procedural justice judgments and satisfaction ratings if they experience higher levels of belongingness in their lives.

As an aside, it can be noted here that the Belongingness in Life Scale did not predict procedural justice judgments in the voice condition ( $\beta = .26, p = .07$ ) or in the no-voice condition ( $\beta = -.22, p > .12$ ). The Belongingness in Life Scale did predict satisfaction ratings in the voice condition ( $\beta = .33, p < .03$ ) but not in the no-voice condition ( $\beta = -.16, p > .26$ ). We revisit this issue in the General Discussion.

## Discussion

Experiment 3 constitutes an extension of Experiments 1 and 2. Whereas the first two studies manipulated inclusion versus exclusion by peers in a group, the third study showed that people who generally perceive themselves to be more included by peers in their lives responded more strongly to voice as opposed to no-voice procedures on procedural justice judgments and satisfaction ratings. This finding corresponds with the general argument of the current article that people's level of inclusion moderates the effects of voice as opposed to no-voice procedures, and it suggests that people's level of inclusion is the underlying construct that can explain the findings of Experiments 1 and 2. Furthermore, the findings of Experiment 3 indicate that the relation between group membership and procedural justice is not necessarily explainable because voice procedures affirm inclusion in a specific and identifiable group membership, but can also have to do with a more general human sense of belongingness. After all, people's general level of inclusion by peers in their lives was measured in an independent study prior to the procedure manipulation, and the

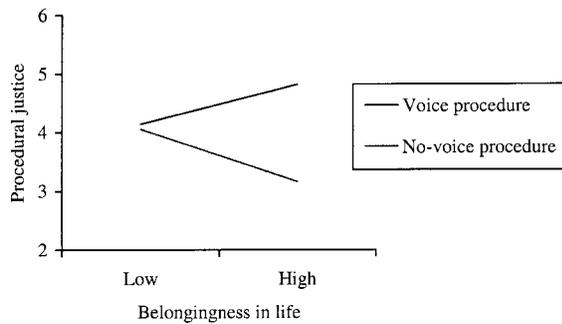


Figure 1. Procedural justice judgments as a function of belongingness in life and procedure.

Belongingness in Life Scale did not refer to a specific and identifiable group.

### General Discussion

The current research integrates previous research findings on group membership and procedural justice. That is, it has been reported that authority's categorization (Smith et al., 1998; Ståhl et al., 2004), level of identification (Huo et al., 1996), and within versus between group interactions (Tyler et al., 1998) affect people's reactions to procedural justice. We argue here that these three different aspects of group membership share at least one common feature: All these aspects of group membership may be indicative of people's level of inclusiveness with others. Furthermore, in all these studies, the strongest procedural justice effects were found under conditions of high inclusiveness (i.e., in-group authorities, high identification, within-group interactions). This suggests that high levels of inclusion lead to strong reactions to procedures. This position was corroborated by the current research, in which direct inclusion by peers in Experiments 1 and 2 led to relatively stronger reactions to procedures than direct exclusion by peers. Furthermore, in Experiment 3 it was shown that people who generally experience high levels of inclusion in their lives respond more strongly to procedures than people who experience low levels of inclusion in their lives. These are findings that fit into the group-belongingness literature, given that being included by peers is beneficial to people's belongingness needs (cf. Baumeister & Leary, 1995), and fairness is associated with this sense of belongingness because fairness may affirm people's inclusion in groups (Lind & Tyler, 1988). Fairness may therefore help people to maintain a satisfactory feeling of inclusion in social groups. From all this, we conclude that one of the reasons why fairness may be important to people is that it can have utility as an inclusion maintenance tool.

It is important to note here that the central role of group membership in the present article should not be taken as evidence that group membership is a necessary precondition for procedural justice effects to occur (for similar arguments, see Folger, 1998). After all, variations in procedural justice also tend to exert strong effects on people's reactions when no particular group membership is salient (see, e.g., Van den Bos, 2001; Van den Bos & Miedema, 2000; Van Prooijen et al., 2002). These considerations suggest that procedural justice may affect people's reactions both in group-related and in group-unrelated situations. In correspon-

dence with this, in Experiments 1 and 2 we found strong effects of voice versus no-voice procedures even if participants were excluded by their peers and, thus, were no longer members of the group. This may imply that the association between fairness and people's level of inclusion may be an important reason but not the sole reason why people care about fairness. This distinction between sufficient and necessary causes of justice effects (see Folger & Cropanzano, 1998) is an important yet often overlooked feature of the social justice literature. Indeed, future researchers might productively investigate this fundamental difference in the justice judgment process. This said, however, what we think the findings here have consistently shown is that people's level of inclusion is a moderator of procedural fairness effects.

Both the moral exclusion literature and the current experiments have examined the relationship between fairness and social inclusion and exclusion. However, whereas the moral exclusion literature concentrates on determinants of fair or unfair behaviors as a function of social inclusion and exclusion (Deutsch, 1974; Huo, 1997; Opatow, 1990), we have focused on people's reactions to fairness or unfairness as a function of social inclusion and exclusion. The current experiments are thereby substantially different from the moral exclusion literature. Yet, we urge researchers to note here that empirical research data on moral exclusion are rather scarce. This is unfortunate, because the psychology of moral exclusion may be very important to understanding the dark side of human behavior (cf. Opatow, 1990), making empirical research in this direction highly worthwhile. Even more generally, empirical procedural justice research has predominantly focused on people's reactions to fairness and not on what may lead people to behave fairly or unfairly (cf. Greenberg, 1987; Folger, 1998). Understanding the determinants of fair or unfair behaviors seems to be a critical topic and may be an important direction for future justice research.

A strength of the current experiments is that the reported effects were found in situations in which participants received voice about something that was not related to their group membership or to their belongingness in life. Authorities either did or did not allow participants voice about a financial bonus in Experiment 1, about the number of tasks to be completed in Experiment 2, and about a number of lottery tickets in Experiment 3. Furthermore, the authorities in Experiments 1 and 2 were not directly a member of participants' group. We did this to ensure that the group-belongingness manipulation was fully orthogonal to the procedure

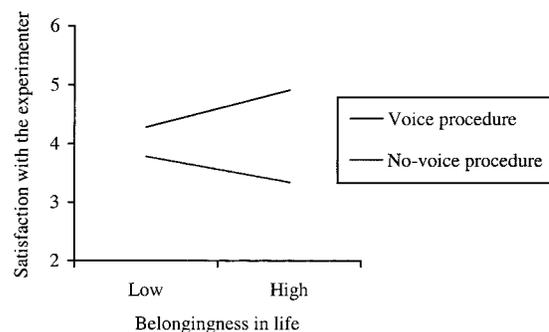


Figure 2. Satisfaction with the experimenter as a function of belongingness in life and procedure.

manipulation and that the induction of the procedure manipulation was not perceived differently across group-belongingness conditions. Manipulation check findings corroborated this, leading us to conclude that the procedure manipulation was not confounded with the belongingness manipulation. Moreover, in Experiment 3 we measured belongingness in life in an independent study that preceded the study that included the procedure manipulation. It can therefore be concluded that level of inclusion affects people's reactions to voice as opposed to no-voice procedures, even if participants receive voice or no voice from an independent authority about a decision that is unrelated to one's particular group membership.

To get an indication of the robustness of our findings, we have used three different methodologies to investigate the moderating effects of group belongingness on reactions to procedures. That is, in Experiment 1 we used a scenario experiment, whereas in Experiment 2 we investigated our hypotheses using laboratory groups. These experiments were extended with Experiment 3, in which we measured participants' level of inclusion as an individual difference variable. Additionally, in all three experiments we investigated our hypotheses on satisfaction judgments, and in Experiments 2 and 3 we also investigated whether the expected effects could be found on procedural justice judgments as well. Converging evidence across the experiments suggests that the current findings are not specific to one single methodology, but rather they represent phenomena that are robust and can be demonstrated in different research set ups and several social situations.

The predicted effects were found on both satisfaction ratings (Experiments 1–3) and on procedural justice judgments (Experiments 2 and 3). However, the results show that the group-belongingness manipulation predominantly affected participants' ratings of procedural satisfaction following voice procedures (see Tables 1 and 2), whereas the group-belongingness manipulation predominantly affected participants' procedural justice judgments following no-voice procedures in Experiment 2 (see Table 2). Furthermore, the Belongingness in Life Scale in Experiment 3 predicted satisfaction ratings following voice procedures but did not predict procedural justice judgments following voice or no-voice procedures. Research has shown that, sometimes, different processes may operate in justice judgments and satisfaction ratings (e.g., Van den Bos et al., 1997; Van den Bos, Wilke, Lind, & Vermunt, 1998). Future researchers may want to find out which dependent variable is particularly sensitive to voice or to no-voice procedures. For the present research, we note that group belongingness has the potential to affect people's reactions following both voice and no-voice procedures.

Additionally, it should be noted here that satisfaction judgments had a strong overall correlation with procedural justice judgments in Experiment 2 ( $r = .85, p < .01$ ), that in this experiment these two measures were strongly correlated within all six conditions of the design ( $r = .55 < r < .87, ps < .02$ ), and that these within-condition correlations did not differ significantly from each other as shown by Fisher's  $r$  to  $z$  transformations with Bonferroni correction. Furthermore, in Experiment 3 procedural justice judgments also correlated strongly with satisfaction ratings ( $r = .47, p < .01$ ). This shows that procedural justice judgments were substantially associated with satisfaction judgments in both Experiments 2 and 3, and it suggests that when studying the interplay of group belongingness and procedural justice it may be more appro-

priate to focus on the convergence rather than on the divergence of the two measures (for related arguments, see Brockner & Wiesenfeld, 1996; Cropanzano & Greenberg, 1997). Furthermore, in Experiment 2 the two measures converged on the predicted finding that the effects of voice as opposed to no-voice procedures on people's reactions were stronger if participants were included in a group than if they were excluded from a group—a finding that was corroborated by the finding in Experiment 3 that the effects of procedure on both procedural justice judgments and satisfaction ratings are stronger among those who experience high levels of belongingness in their lives than among those who experience low levels of belongingness in their lives.

We could not find corroborative evidence for the tentative prediction in Experiments 1 and 2 that the effects of procedure would be relatively stronger in the not-yet-known conditions than in the inclusion and the exclusion conditions. This prediction was based on recently developed social-cognitive models of procedural justice, notably fairness heuristic theory and the uncertainty management model (Lind et al., 1993; Van den Bos et al., 1997; Van den Bos, 2001; Van den Bos et al., 2001; Van den Bos & Lind, 2002). An explanation may be found in the fact that the current research was conducted in an explicit social (i.e., intra-group) setting. Such a group dynamic context is distinct from the cognitive setting of previous studies on fairness heuristic and uncertainty management frameworks. Furthermore, other research that failed to support predictions from fairness heuristic theory and the uncertainty management model was conducted in social settings as well (Van den Bos & Lind, 2001; Van Prooijen, Van den Bos, & Wilke, 2003). It might therefore be that predictions from fairness heuristic theory and the uncertainty management model are less generalizable to group dynamic contexts than has been recognized before. Be that as it may, the current research should not be viewed as a refutation of fairness heuristic theory and the uncertainty management model. After all, there are more studies available that support predictions of these theories (e.g., Van den Bos, 2001; Van den Bos et al., 1997; Van den Bos & Miedema, 2000; Van den Bos, Wilke, & Lind, 1998; Van den Bos, Wilke, Lind, & Vermunt, 1998; for overviews, see Lind & Van den Bos, 2002; Van den Bos & Lind, 2002) than studies that fail to support predictions from these theories (Van den Bos & Lind, 2001; Van Prooijen et al., 2003). Nevertheless, the current study (as well as the studies reported in Van den Bos & Lind, 2001, and Van Prooijen et al., 2003) suggests that the processes advanced by fairness heuristic theory and the uncertainty management model are not entirely unconditional. An important direction for future procedural justice research would therefore be to explore in which types of social settings predictions by these theories may or may not be supported.

To conclude, the current studies add to our understanding of group membership in procedural justice by showing that level of inclusion by people's peers may moderate procedural fairness effects. Level of inclusion is an essential element of group membership (Baumeister & Leary, 1995), and group membership is related to the psychology of procedural justice (Cropanzano et al., 2001; Folger & Cropanzano, 1998; Lind & Tyler, 1988; Tyler & Blader, 2000; Tyler & Lind, 1992; Van Prooijen et al., in press). We have shown that effects of voice as opposed to no-voice procedures become stronger at higher levels of inclusion. Whether

people are socially included or excluded by their peers therefore is an important moderator of their reactions to procedural justice.

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Received January 30, 2002

Revision received June 5, 2003

Accepted January 26, 2004 ■