



The egocentric nature of procedural justice: Social value orientation as moderator of reactions to decision-making procedures

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ABSTRACT

In four studies, the authors investigated the individual-oriented versus social-oriented nature of procedural justice effects by comparing fairness-based responses to decision-making procedures among proself versus prosocial oriented individuals. In Studies 1 through 3, we measured participants' social value orientation and manipulated whether or not they were granted or denied voice in a decision-making process. Results consistently revealed that the effects of voice versus no-voice on fairness-based perceptions, emotions, and behavioral intentions were significantly more pronounced for individuals with proself orientations than for individuals with prosocial orientations. These findings were extended in Study 4, a field study in which perceived procedural justice was a stronger predictor of satisfaction and organizational citizenship behaviors among proselfs than among prosocials. These findings suggest that procedural justice effects can be accounted for by self-oriented motives or needs, rather than prosocial motives that are often conceptualized as being associated with justice.

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People care deeply about justice. This is evidenced by people's strong reactions to social situations that they perceive to be fair or unfair: People tend to display great appreciation when they have the feeling that "justice was done", but when people believe that injustice has prevailed they display aversive reactions such as anger, fear, and disgust (Lind & Tyler, 1988; Tyler & Lind, 1992). One justice concern that people have pertains to outcome distributions: People want to receive fair outcomes (e.g., in proportion to the work they have conducted and/or in comparison to other people). This justice conceptualization is commonly referred to as distributive justice (Adams, 1965; Walster, Walster, & Berscheid, 1978). A related but different justice concern that people have pertains to the procedures that are used for reaching decisions: People want authorities to use fair decision-making procedures. This justice conceptualization is commonly referred to as procedural justice (Thibaut & Walker, 1975; for overviews, see Brockner & Wiesenfeld, 1996; Folger & Cropanzano, 1998; Lind & Tyler, 1988; Tyler & Blader, 2003; Tyler & Lind, 1992; Van den Bos & Lind, 2002). The distinction between distributive and procedural justice is important, because classic work of Thibaut and Walker (1975) suggests that people's justice concerns indeed involve questions

about both outcomes and procedures (see also Brockner & Wiesenfeld, 1996).

Both distributive and procedural justice have been studied extensively by social psychologists who examined social influences on people's justice evaluations (Cropanzano, Byrne, Bobocel, & Rupp, 2001; Lind & Tyler, 1988; Tyler & Lind, 1992; Van den Bos & Lind, 2002). However, relatively little research attention has been devoted to personality variables that predict people's justice judgments (Colquitt, Scott, Judge, & Shaw, 2006). In the case of distributive justice, an exception to this observation can be made for social value orientation, defined as preferences for particular distributions of outcomes for self and others (Messick & McClintock, 1968; Van Lange, Otten, De Bruin, & Joireman, 1997). Generally, a three-category typology of social value orientation is advanced, distinguishing among prosocial, individualistic, and competitive orientations. Prosocials are defined in terms of enhancing collective outcomes and equality in outcomes between themselves and others; individualists are defined in terms of enhancing outcomes for self with no or very little regard for other's outcomes; and competitors are defined in terms of enhancing relative advantage over others. Thus, the distinction between social value orientations is multidimensional, and research indeed revealed that a prosocial orientation is associated with greater tendencies to enhance both collective outcomes and equality in outcomes than individualistic and competitive orientations (Van Lange, 1999). Furthermore, indi-

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vidualistic and competitive orientations are often combined into a single category of proself orientation, because both seek to enhance own outcomes, either in an absolute sense (individualists) or in a relative or comparative sense (competitors) (e.g., De Cremer & Van Lange, 2001; Parks, 1994; Smeesters, Warlop, Van Avermaet, Corneille, & Yzerbyt, 2003).

Past research has revealed that relative to proselves, prosocials exhibit greater cooperation toward others, expect greater cooperation from others, and tend to interpret others' behavior more strongly in terms of morality and fairness (e.g., Beggan, Messick, & Allison, 1988; De Dreu & Boles, 1998; Liebrand, Jansen, Rijken, & Suhre, 1986; McClintock & Liebrand, 1988; Smeesters et al., 2003; Van Lange & Kuhlman, 1994). Also, prosocials are more likely to exhibit reciprocity and concern with fairness in outcome distributions, whereas proselves to a larger extent try to benefit from the cooperation actually displayed by others or expected from others (Kuhlman & Marshello, 1975; Van Lange, 1999). Complementary research on response latencies, priming, emotion, and judgment underscores these findings in dyads and larger groups (e.g., Dehue, McClintock, & Liebrand, 1993; Stouten, De Cremer, & Van Dijk, 2005; Van Dijk, De Cremer, & Handgraaf, 2004).

While past research on social value orientation has yielded a wealth of findings, it is important to note that virtually all research has focused on the manner in which prosocials and proselves approach others, judge others, and respond to others when faced with situations that involve questions about distributive justice, that is, situations in which behavior directly shapes the—often tangible—outcomes for themselves and others. As a strong case in point, the relation between social value orientation and procedural justice has been unexplored. Given that empirical research indicated that distributive and procedural justice are distinct types of justice judgments (for overviews, see Brockner & Wiesenfeld, 1996; Colquitt, 2001; Thibaut & Walker, 1975), scientific knowledge on the relation between social value orientation and justice may be extended substantially by examining how proselves and prosocials differ in their responses to experiences of procedural justice. By investigating how social value orientation predicts people's responses when they are subjected to procedurally fair versus unfair decision-making procedures (i.e., procedural justice effects), the present research has the major purpose to increase scientists' understanding of people's reactions to decision-making procedures in at least two important ways.

First, examining the relation between social value orientation and experiences of procedural justice illuminates the egocentric versus prosocial nature of procedural justice phenomena. Specifically, using variations of a paradigm that is commonly used in the procedural justice literature, we study whether procedural justice effects are stronger—or less strong—for individuals with proself orientations (who primarily value outcomes for self) than for individuals with prosocial orientation (who value outcomes for self and others as well as equality in outcomes). If fairness-based responses to decision-making procedures are primarily inspired by self-oriented motives, then these responses should be especially pronounced for individuals with a proself orientation. Conversely, if fairness-based responses to decision-making procedures are primarily inspired by moral principles that dictate a concern for both self and others, then these responses should be especially pronounced for individuals with a prosocial orientation. As such, the present research seeks to contribute to existing theories of justice and social decision making by illuminating the motivational basis for procedural justice effects.

Second, the present research may help bridge the gap between procedural justice and personality differences in understanding why some people may be more sensitive and responsive to variations in procedural justice than others (cf. Colquitt et al., 2006). As noted earlier, social value orientation is predictive of cognitions,

affect, behavior and interactions in social dilemma tasks and related outcome-relevant situations. As such, investigating how social value orientation predicts people's reactions to decision-making procedures would provide insights into how individuals can be predisposed to respond to procedural justice or injustice in certain ways. These considerations led us to conduct a series of studies in which we explored how prosocials and proselves differ in their reactions to decision-making procedures. In the following, we introduce the specifics of the current research and present our hypotheses.

Procedural justice and social value orientation

One of the most typical procedural justice phenomena is the finding that people are influenced substantially by the extent to which they regard the decision-making procedures that they are subjected to as fair or unfair: Decision-making procedures that are regarded as fair exert a positive influence on numerous perceptions, emotions, and behaviors when compared with decision-making procedures that are regarded as unfair (Leventhal, 1980; Thibaut & Walker, 1975; Tyler & Lind, 1992). An illustration of these procedural justice effects can be found in the effects of voice procedures: People evaluate decision-making procedures that allow them an opportunity to voice an opinion as more fair than procedures that deny them such an opportunity (Folger, 1977; Folger, Rosenfield, Grove, & Corkran, 1979). As a consequence, voice procedures (as opposed to no-voice procedures) increase people's satisfaction ratings, decrease negative affect, lead people to evaluate their relation with decision-makers more positively, increase people's willingness to accept decisions, decrease people's intentions to take revenge, and increase their effort on behalf of the decision-making authority (e.g., Brockner et al., 1998; Greenberg & Folger, 1983; Lind, Kanfer, & Earley, 1990; Tyler & Lind, 1992; Van den Bos, 2001, 2003; Van den Bos, Wilke, & Lind, 1998; Van Prooijen, Karremans, & Van Beest, 2006; Van Prooijen, Van den Bos, & Wilke, 2004, 2005). In the current research, we refer to perceptions, emotions, and behaviors that are commonly assessed in procedural justice research and that tend to be related to perceived procedural justice as people's *fairness-based responses*. The positive effects of voice as opposed to no-voice procedures on people's fairness-based responses are very robust findings that replicate across a variety of methodologies and samples (Brockner et al., 1998; Lind et al., 1990; Tyler, 1987; Van den Bos & Van Prooijen, 2001).

Decision-making procedures (such as voice or no-voice procedures) constitute actions on part of decision-making authorities that have direct implications for the well-being of recipients (Tyler & Lind, 1992; see also Koper, Van Knippenberg, Bouhuijs, Vermunt, & Wilke, 1993). As such, explanations of procedural justice effects have largely focused on the beneficial versus detrimental consequences of decision-making procedures for the self (Van Prooijen et al., 2006). Explanations of procedural justice effects can broadly be categorized into two classes: instrumental and non-instrumental explanations. Early instrumental explanations emphasized that people value procedures that allow them a certain amount of process control, that is, control over the manner in which decisions are taken (Thibaut & Walker, 1975). According to these instrumental explanations, people desire process control because it enables them to influence decisions, increasing the likelihood for positive outcomes and decreasing the likelihood for negative outcomes. Thus, instrumental explanations proposed that fair procedures are functional to serve people's instrumental desire for decisions that are beneficial to themselves.

In the mid-1980s researchers suggested that people care about fairness in a decision-making process for both instrumental and non-instrumental reasons (Lind et al., 1990; Tyler, Rasinski, & Spodick, 1985). These non-instrumental concerns are illuminated in

one of the most influential explanations of procedural justice effects, the relational model of authority (Tyler & Lind, 1992; see also Lind & Tyler, 1988; Tyler & Blader, 2003). According to this model, people value fair procedures because it has positive implications for their sense of self-worth. In particular, the model assumes that people have a need to be a respected member of their community (cf. Baumeister & Leary, 1995), and hence, they search for information about the extent to which they are valued and respected within their group. Because group authorities are regarded as representative for the entire group, the relational model argues, people make inferences about the extent to which they are respected members of their community from the way they are treated by group authorities. If an authority uses fair decision-making procedures, it communicates that the authority regards the recipient as having high status, respected, and as a fully-fledged member of the group. If an authority uses unfair decision-making procedures, it suggests that the authority regards the recipient as having low status or as a marginal or excluded member (Tyler, Degoey, & Smith, 1996). Thus, non-instrumental explanations have suggested that fair decision-making procedures serve an important value-expressive function that is beneficial to the self because it is associated with high status, respect, and satisfactory levels of belongingness (De Cremer, 2002; Lind & Tyler, 1988; Tyler, 1994; Tyler & Lind, 1992; Van Prooijen, Van den Bos, & Wilke, 2002; Van Prooijen et al., 2004, 2005).

Although instrumental and non-instrumental explanations of procedural justice effects differ conceptually, they converge on the assertion that people care about procedural justice because of the positive self-relevant implications that fair decision-making procedures convey. As such, both classes of explanation assume that people desire procedural justice for egocentric reasons, and these egocentric reasons can be either instrumental (e.g., wanting positive outcomes) or non-instrumental (e.g., wanting to be respected, wanting to ensure a positive sense of self-worth) in nature. These considerations suggest that recipients' fairness-based responses to decision-making procedures are largely inspired by egocentric motivations (cf. Epley & Caruso, 2004; Lind, Kray, & Thompson, 1998; Messick & Sentis, 1979; Van Prooijen, Van den Bos, Lind, & Wilke, 2006). Based on this line of reasoning, it can be expected that fairness-based responses of particularly proselves (who are predisposed to be oriented towards benefiting themselves during allocation decisions) would be shaped by the specifics of the decision-making process. We therefore hypothesized that fairness-based responses would be more sensitive to decision-making procedures among proselves than among prosocials. We refer to this hypothesis as the *egocentric justice hypothesis*.

Moreover, we expected that both instrumental and non-instrumental concerns would contribute to this increased influence of procedures on fairness-based responses among proselves. It might be argued that distinctions between proselves and prosocials in responses to decision-making procedures are largely caused by instrumental motives. It has been found that procedures are to some extent used to gauge the fairness of expected outcomes (Thibaut & Walker, 1975; Van den Bos & Lind, 2002; Van den Bos, Wilke, Lind, & Vermunt, 1998), and it can plausibly be argued that this process is more pronounced among prosself as opposed to prosocial individuals. Although such a finding would be innovative in itself, we argue here that it is unlikely that instrumental motives alone can explain all variance in proselves' and prosocials' differential responses to procedures. Even though social value orientation is measured by assessing individuals' preferences for specific outcome distributions, it stands to reason that these prosself versus prosocial preferences reflect more general styles of processing social information in individually versus socially oriented ways. We therefore reasoned that it is likely that prosself and prosocial orientations also have implications for self-relevant motives that are

non-instrumental in nature. Hence, we expected that the egocentric justice hypothesis would materialize even after controlling for participants' instrumental concerns.

Such an egocentric interpretation of procedural justice effects stands in contrast to the idea that people might desire fair decision-making procedures because of prosocial motives, like moral values and social norms (e.g., Folger, 1998). It may however well be the case that people desire fair decision-making procedures because of prosocial justice norms, such as norms that all people should have a say in decisions that are relevant to them. This line of reasoning is not implausible, particularly given that prosocial justice norms also shape other forms of justice to a substantial extent. For instance, distributive justice findings indicate that many people seek equity or equality while evaluating overpayment as unfair (e.g., Adams, 1965; Peters, Van den Bos, & Bobocel, 2004; Walster et al., 1978). Furthermore, fair decision-making procedures can potentially have prosocial implications, both instrumentally and non-instrumentally. To illustrate, fair decision-making procedures may lead to outcomes that are not only favorable to the self, but in addition, fair procedures may produce outcomes that are fair to all parties involved (Thibaut & Walker, 1975). Moreover, fair decision-making procedures are commonly associated with establishing and maintaining harmonious interpersonal relationships. This is evidenced, for instance, by findings that procedural justice stimulates cooperative behavior in social dilemmas (De Cremer & Tyler, 2005; Tyler & Degoey, 1995). These strivings for fair (and particularly equal) outcomes and harmonious interpersonal relationships reflect behavioral patterns that are commonly associated with prosocials, and less so with proselves (De Cremer & Van Lange, 2001; Eek & Gärling, 2006; Van Beest, Van Dijk, & Wilke, 2003; Van Lange, 1999). Based on this line of reasoning, it might alternatively be expected that fairness-based responses of particularly prosocials (who are predisposed to strive for fairness and cooperative interpersonal behaviors) are shaped by the specifics of a decision-making process. It can thus alternatively be hypothesized that recipients' fairness-based responses would be more sensitive to decision-making procedures among prosocials than among proselves. We refer to this alternative hypothesis as the *prosocial justice hypothesis*.

In the current research, we conducted four studies in which we have put these competing hypotheses to the test in a variety of social settings, and on a wide range of justice-based perceptions, emotions, and behavioral intentions. In all studies, we measured social value orientation as a personality variable using a validated decomposed games measure (Van Lange, 1999; Van Lange et al., 1997). Furthermore, Studies 1 through 3 were laboratory experiments in which we operationalized decision-making procedures by manipulating whether or not participants were allowed or denied voice in a decision-making process. It has been noted that the positive effects of voice procedures on people's fairness-based reactions is the most frequently replicated phenomenon in the procedural justice literature (Brockner et al., 1998; Lind et al., 1990; Tyler, 1987; Van den Bos & Van Prooijen, 2001), and as a consequence, procedural justice theories are to a substantial extent based on paradigms that investigated these decision-making procedures. Manipulating voice versus no-voice procedures therefore provides a good point of departure to investigate the relation between social value orientation and procedural justice. In Study 4 these experimental studies were extended with an applied study in which we measured as independent variables participants' social value orientation and perceived procedural justice, and as dependent variables emotions and behaviors that are commonly associated with justice. Furthermore, in Study 4 we controlled for perceptions of distributive justice to empirically establish whether the predicted findings indeed occur to some extent for non-instrumental reasons.

Study 1

In Study 1, we tested our hypotheses by measuring social value orientation and manipulating voice versus no-voice procedures. The study focused on the most typical dependent variable in procedural justice research: Procedural justice judgments (e.g., Tyler & Lind, 1992; Van den Bos & Lind, 2002). In correspondence with previous research, we assessed procedural justice by focusing of the interpersonal component of the decision-making process (e.g., Van den Bos, 2003; Van Prooijen et al., 2006): Participants responded to the questions how fair, just, and appropriate they were treated by the decision-maker.¹ Furthermore, given that justice judgments are closely associated with affect (Haidt, 2001; Van den Bos, 2003; Weiss, Suckow, & Cropanzano, 1999), in Study 1 we also tested our hypotheses on procedural satisfaction ratings. Based on the egocentric justice hypothesis, it can be expected that procedural justice judgments and procedural satisfaction ratings are more strongly influenced by the manipulation of voice versus no-voice procedures among proselves than among prosocials. Based on the prosocial justice hypothesis, it can alternatively be expected that procedural justice judgments and procedural satisfaction ratings are more strongly influenced by the manipulation of voice versus no-voice procedures among prosocials than among proselves.

Method

Participants and design

We tested our hypotheses in a design in which we measured participants' social value orientations (prosocial versus prosel), and randomly assigned participants to procedure conditions (voice versus no-voice). A total of 113 Leiden University students participated (42 males, 71 females; $M_{\text{age}} = 19.99$ years, $SD = 2.51$). The experiment was preceded by another experiment that was unrelated to the findings reported here. The experiments lasted one hour, and participants were paid €7 for participation.

Procedure

Participants were led to separate cubicles where they found computer equipment to present the stimulus information and to register the data. The experiment was presented as two unrelated studies. Participants started with "Experiment 1", in which we measured (as part of a larger questionnaire)² social value orienta-

tions by means of the nine-item Triple-Dominance Measure of Social Value Orientation (see Van Lange et al., 1997, for details). This measure, as well as related measures, has excellent psychometric qualities. It is internally consistent (e.g. Parks, 1994), reliable over substantial time periods (Eisenberger, Kuhlman, & Cotterell, 1992), is not related to measures of social desirability (e.g., Platow, 1994), predictive of motives and behaviors in the laboratory and the real world, and easy to administer in an experimental session or survey (e.g., for instructions, see Van Lange, De Cremer, Van Dijk, & Van Vugt, 2007). Each item in this measure contains three alternative outcome distributions with points for oneself and an (anonymous) other. The other is said to be someone that they did not know and that they would never knowingly meet in the future so as to examine participants' general tendencies toward others. The instructions briefly note that the other will be making choices so as to induce some interdependence between the participant and the other. Finally, outcomes are presented in terms of points, and participants were asked to imagine that the points had value to themselves as well as to the other person.

Each outcome distribution represents a particular orientation. An example of one choice item is the following: Option A: 480 points for self and 80 points for other; Option B: 540 points for self and 280 points for other; and Option C: 480 points for self and 480 points for other. In this example, option A represents the competitive choice, because it provides a larger difference between one's own and the other's outcome ($480 - 80 = 400$) than either option B ($540 - 280 = 260$) or option C ($480 - 480 = 0$). Option B represents the individualistic choice because one's own outcome is larger (540) than are those in option A (480) or option C (480). Finally, option C represents the prosocial choice, because it provides a larger joint outcome ($480 + 480 = 960$) than does either option A ($480 + 80 = 560$) or option B ($540 + 280 = 820$); also, option C represents a smaller discrepancy between own and other's outcomes ($480 - 480 = 0$) than does either option A ($480 - 80 = 400$) or option B ($540 - 280 = 260$). Hence, the prosocial choice represents both a concern for collective outcomes and a concern for equal outcomes, as past research has revealed that those consistently choosing the prosocial option tend to do so for both concerns (Van Lange, 1999).

Participants are classified as prosocial, individualistic or competitive when at least six choices (out of nine) are consistent with one of the three orientations (e.g., Van Lange & Kuhlman, 1994). It turned out that 40 participants were classifiable as prosocial, 41 as individualist, and 17 as competitor. A total of 15 participants were not classifiable and were excluded from further analyses. In correspondence with previous research, and because both individualists and competitors have an egocentric focus in their outcome choices, the individualists and competitors were combined to form one group of proselves³ (e.g., De Cremer & Van Lange, 2001; Parks, 1994; Smeesters et al., 2003).

Participants then continued with "Experiment 2", which was ostensibly unrelated to Experiment 1. Experiment 2 was introduced as an experiment on how people perform tasks. Participants were led to believe that all computers in the lab were interconnected, and that the experimenter, who was supposed to be in one of the cubicles, could send messages to all participants during the experiment (in reality, all stimulus information was pre-programmed; a procedure none of the participants commented on during the debriefing). Finally, participants were informed that a lottery with a prize of €50 would take place among all participants, and that following the tasks the experimenter would allocate a

¹ In social justice literature, there is an ongoing debate on terminology of the perceived fairness of interpersonal treatment. Organizational justice scholars have argued that procedural justice should refer only to the perceived fairness of the formal decision-making structure, and that the perceived fairness of treatment should be referred to as interactional justice (e.g., Bies & Moag, 1986; Colquitt, 2001). Other justice scholars, however, have argued that treatment quality is a necessary component of procedural justice judgments, as people attend to both formal decision-making procedures as well as the quality of interpersonal treatment to evaluate procedural justice (e.g., Tyler & Blader, 2003). In the current article, we adopt the latter (more generalized) terminology. We believe that explicitly distinguishing between procedural and interactional justice makes sense only in organizational settings where there is a formalized decision-making structure and continuous interaction with authorities, enabling people to evaluate formal decision-making procedures separately from their interpersonal contact with authorities. In situations where people interact with a decision-maker only once, as in Studies 1–3 and as often happens in everyday life, it is in all likelihood much harder for recipients to view the formal decision-making process (e.g., being denied voice) separately from the quality of interpersonal treatment.

² In Study 1, the larger questionnaire in which we measured social value orientation also examined other (unrelated) personality factors as predictors of procedural justice effects. In particular, the larger questionnaire also comprised measures of participants' structural approach and avoidance inclinations, and we note here that the results produced by these other parts of this data set were published elsewhere (Van Prooijen et al., 2006; Exp. 3). Of importance, proselves and prosocials did not differ significantly in their structural approach or avoidance inclinations, which suggests that the processes described in the current article indeed are independent from the processes described in Van Prooijen et al. (2006).

³ In all of the studies reported here, no different procedural justice effects were observed between individualists and competitors. Furthermore, when excluding the limited number of competitors from our samples, we found a similar influence of social value orientation on procedural justice effects.

number of lottery tickets to the participant (e.g., Van den Bos, 2001, 2003; Van den Bos et al., 1998; Van Prooijen et al., 2002, 2004, 2006).

Next, the tasks were explained to the participants. Figures would be presented on the upper right side of the computer screen. Each figure consisted of 36 squares, and each square showed one of eight distinct 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 on the right side of the screen. After participants had indicated the correct number, a new figure was presented. Participants completed 25 of these figures.

Following the tasks, the manipulation of procedure was administered to the participants. Participants in the voice condition were informed that they were allowed an opportunity to voice their opinion about the number of lottery tickets that they thought should be allocated to them. These participants were asked to type in the number of lottery tickets they thought they should receive. Participants in the no-voice condition were informed that they were not allowed an opportunity to voice their opinion about the number of lottery tickets that they thought should be allocated to them. These participants were not asked to type in the number of lottery tickets they thought they should receive. Participants were then informed that they would be asked a number of questions before being informed about the number of lottery tickets they would receive. These questions, each being presented on a separate screen, constituted the dependent measures and the manipulation checks.

To measure participants' procedural justice judgments, we posed the following three questions: "How fair was the way you were treated by the experimenter?" (1 = *very unfair*, 7 = *very fair*), "How just was the way you were treated by the experimenter?" (1 = *very unjust*, 7 = *very just*), and "How appropriate was the way you were treated by the experimenter?" (1 = *very inappropriate*, 7 = *very appropriate*). These three items were averaged into a reliable procedural justice scale ($\alpha = .92$). To measure procedural satisfaction, we asked the following two questions: "How satisfied are you with the way you were treated by the experimenter?" (1 = *very unsatisfied*, 7 = *very satisfied*), and "How glad are you with the way you were treated by the experimenter?" (1 = *not at all*, 7 = *very much*). These two items were averaged into a reliable procedural satisfaction scale ($\alpha = .89$). Although the procedural justice and satisfaction scales were strongly correlated ($r = .74$, $p < .001$), we decided to analyze them as separate variables, given theoretical arguments that justice judgments and satisfaction ratings not necessarily originate from the same psychological process (Van den Bos et al., 1998). To check the procedure manipulation, we asked the following two questions (*not at all*, 7 = *very much*): "To what extent did the experimenter allow you an opportunity to voice your opinion about the number of lottery tickets that should be allocated to you?" and "How much attention did the experimenter have for your opinion about the number of lottery tickets that should be allocated to you?". These two items were averaged into a reliable procedure check scale ($\alpha = .77$). After this, participants were debriefed, thanked, and paid for their participation.

Results

Manipulation check

A 2 (SVO) \times 2 (procedure) ANOVA on the procedure check scale yielded a significant procedure main effect only, $F(1,94) = 87.16$, $p < .001$. Participants in the voice condition perceived more opportunities to voice their opinions ($M = 4.84$, $SD = 1.20$) than participants in the no-voice condition ($M = 2.18$, $SD = 1.51$). These results indicate that participants perceived the procedure manipulation as intended.

Voiced opinions

We analyzed whether social value orientation predicted participants' expressed opinions in the voice condition as to how many lottery tickets they believe should be allocated to them. Results revealed that the effect of social value orientation was nonsignificant, $F(1,44) = 3.44$, $p < .08$, although we do note a trend towards proselves asking for more lottery tickets ($M = 29.30$, $SD = 57.04$) than prosocials ($M = 4.84$, $SD = 6.06$). In Study 2, we test whether this nonsignificant trend on participants' voiced opinions is reliable. For now, we note that when we included participants' voiced opinions as a covariate in the analysis testing the simple effect of social value orientation on the dependent variables in the voice condition, results were similar as reported below. This suggests that the present results can not be attributed to people's instrumental desire to acquire a satisfactory number of lottery tickets.

Dependent variables

The means and standard deviations are displayed in Table 1. To analyze procedural justice judgments and procedural satisfaction ratings, we conducted a 2 (SVO) \times 2 (procedure) MANOVA. This analysis yielded a significant multivariate procedure main effect, $F(2,93) = 6.96$, $p < .01$, which was qualified by a significant multivariate interaction, $F(2,93) = 4.11$, $p < .03$. On the univariate level, the interaction was significant for both procedural justice judgments, $F(1,94) = 7.69$, $p < .01$, and for procedural satisfaction ratings, $F(1,94) = 6.23$, $p < .02$.

The means in Table 1 suggest that particularly proselves responded strongly to the granting versus the denial of voice opportunities. We conducted simple main effect analyses to directly test the relative strength of the voice effect among prosocials and proselves. On both dependent variables, the procedure simple main effect was significant among proselves, for procedural justice judgments, $F(1,94) = 15.88$, $p < .001$; for procedural satisfaction ratings, $F(1,94) = 23.50$, $p < .001$. However, the procedure simple main effect was nonsignificant among prosocials, both F s < 1 . These results supported the egocentric justice hypothesis, that is, that particularly proselves respond strongly to whether or not they receive voice opportunities in a decision-making process.

It can further be noted here that the effect of social value orientations was significant in the voice condition, for procedural justice judgments, $F(1,94) = 8.75$, $p < .01$; and for procedural satisfaction ratings, $F(1,94) = 7.01$, $p < .02$. Furthermore, in the no-voice condition, the effect of social value orientation approached significance on both measures, for procedural justice judgments, $F(1,94) = 2.77$, $p < .10$; for procedural satisfaction ratings, $F(1,94) = 3.77$, $p < .06$. These results indicate that, in Study 1, social value orientation has the potential to influence fairness-based responses to both voice and no-voice procedures.

Table 1

Means and standard deviations of participants' procedural justice judgments and procedural satisfaction ratings as function of social value orientations and procedure (Study 1)

Dependent variable	Social value orientation			
	Proself		Prosocial	
	M	SD	M	SD
Procedural justice judgments				
Voice procedure	4.28	1.31	3.15	1.43
No-voice procedure	2.75	1.38	3.26	1.72
Procedural satisfaction ratings				
Voice procedure	4.50	1.22	3.68	1.08
No-voice procedure	2.87	1.07	3.35	1.73

Note. Higher means indicate more positive judgments on the dependent variable in question.

Discussion

The results of Study 1 provided preliminary support for the ego-centric justice hypothesis: Particularly proselves are sensitive to whether or not they receive voice opportunities. In fact, in the current experiment the procedure manipulation exerted very strong effects among proselves and nonsignificant effects among prosocials on both procedural justice judgments and procedural satisfaction ratings. Furthermore, it is noteworthy that social value orientation influenced responses to both voice and no-voice procedures in Study 1. These findings suggest that social value orientation has the potential to influence both positive responses to voice and negative responses to no-voice.

By focusing on procedural justice judgments and satisfaction ratings, the current findings suggest that social value orientation predicts the influence of decision-making procedures on justice judgments and emotions. In Study 2, we sought to replicate and extend these findings. In particular, we sought to replicate the findings on procedural justice and satisfaction ratings, while simultaneously investigating the effects on other justice-based perceptions and emotions: Participants' perception of their relation with authorities (i.e., relational treatment evaluations), their negative affective reactions, and their willingness to accept decisions (Tyler & Lind, 1992). As such, Study 2 was designed to assess the extent to which the present findings generalize to multiple types of fairness-based responses.

Study 2

Method

Participants and design

As in Study 1, we tested the hypotheses in a design in which we measured social value orientations and randomly assigned participants to procedure conditions (voice versus no-voice). A total of 90 participants were recruited in the student cafeterias of the Free University Amsterdam ($M_{\text{age}} = 21.23$ years, $SD = 3.73$; 35 males, 55 females). The experiment was preceded and followed by other studies that were unrelated to the findings reported here. The studies lasted a total of 1 h, and participants were paid €7 for their participation.

Procedure

The experimental procedure was very similar to Study 1. Again, we measured social value orientations in "Experiment 1". It turned out that 32 participants were classified as prosocial, 45 as individualist, and 5 as competitor. A total of 8 participants could not be classified and were excluded from further analyses. In correspondence with Study 1, we combined individualists and competitors into a general category of proselves (e.g., Smeesters et al., 2003).

We again presented "Experiment 2" (which contained the procedure manipulation) as an unrelated study. The lottery ticket procedure was the same as in Study 1. Participants completed the same figures as Study 1, although we slightly adjusted the task contingencies: Participants were instructed to complete as many figures as possible within three minutes. Following these three minutes, participants were informed that their performance on the tasks (in comparison to other participants) was about average. The subsequent manipulation of voice versus no-voice procedures was the same as in Study 1.

To measure perceived procedural justice, we asked the same three questions as in Study 1, and again averaged them into a reliable procedural justice scale ($\alpha = .93$). To measure procedural satisfaction, we posed the same two questions as in Study 1, and averaged them into a reliable procedural satisfaction scale

($\alpha = .90$). To measure negative procedural affect, we posed the following three questions: "How disappointed are you about the way you were treated by the experimenter?" (1 = *not very disappointed*, 7 = *very disappointed*), "How angry are you about the way you were treated by the experimenter?" (1 = *not very angry*, 7 = *very angry*), and "How mad are you about the way you were treated by the experimenter?" (1 = *not very mad*, 7 = *very mad*). These questions were averaged into a reliable negative procedural affect scale ($\alpha = .91$). Furthermore, a factor analysis (oblimin rotation) indicated that the procedural satisfaction and negative procedural affect items loaded on separate factors, confirming that these indeed are theoretically distinct constructs. To measure participants' relational treatment evaluations, we posed the following two questions (1 = *not at all*, 7 = *very much*): "Do you believe that the experimenter has faith in you?" and "Do you believe that the experimenter is proud of you?" These two questions were averaged into a reliable relational treatment scale ($\alpha = .79$). To measure participants' willingness to accept the experimenter's decisions, we asked the following two questions (1 = *not at all*, 7 = *very much*): "To what extent are you willing to comply to the experimenter's decisions?" and "To what extent are you willing to accept the experimenter's decisions?" These two questions were averaged into a reliable decision acceptance scale ($\alpha = .93$). The procedure manipulation was checked with the same two items as Study 1, and we again averaged these items into a reliable procedure check scale ($\alpha = .82$). After this, the experiment ended, and participants were fully debriefed, thanked, and paid for their participation.

Results

Manipulation check

A 2 (SVO) \times 2 (procedure) ANOVA on the procedure check scale revealed a significant procedure main effect only, $F(1,78) = 132.05$, $p < .001$. Participants in the voice conditions perceived more opportunities to voice their opinions ($M = 4.99$, $SD = 1.27$) than participants in the no-voice condition ($M = 1.84$, $SD = 1.09$). Both the social value orientation main effect and the interaction were nonsignificant, $F_s < 1$. These results suggest that participants perceived the procedure manipulation as intended.

Voiced opinions

As in Study 1, we again analyzed the influence of social value orientation on participants' expressed opinions in the voice condition. Results revealed that the effect of social value orientation was nonsignificant, $F < 1$ (overall $M = 19.88$, $SD = 49.90$). This finding indicates that the nonsignificant trend that was observed in Study 1 on participants' voiced opinions is not reliable, and suggests that the findings described below are independent of participants' desire for a satisfactory number of lottery tickets.

Dependent variables

The means and standard deviations are displayed in Table 2. All dependent variables were included in a 2 (SVO) \times 2 (procedure) MANOVA. This analysis produced a multivariate procedure main effect, $F(5,74) = 7.92$, $p < .001$. More important was that this analysis also revealed a significant multivariate interaction, $F(5,74) = 3.05$, $p < .02$. Results revealed that the univariate interaction was significant for all dependent variables: For procedural justice judgments, $F(1,78) = 9.09$, $p < .01$; for procedural satisfaction ratings, $F(1,78) = 8.78$, $p < .01$; for negative procedural affect, $F(1,78) = 6.58$, $p < .02$; for relational treatment evaluations, $F(1,78) = 4.00$, $p < .05$; and for decision acceptance, $F(1,78) = 5.15$, $p < .03$.

To explore these interactions, we conducted simple main effect analyses. Among proselves, the procedure simple main effects was significant for all dependent variables: For procedural justice judg-

Table 2

Means and standard deviations of various dependent variables as function of social value orientations and procedure (Study 2)

Dependent variable	Social value orientation			
	Proself		Prosocial	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Procedural justice judgments				
Voice procedure	4.44	1.44	3.94	1.72
No-voice procedure	2.85	1.63	4.52	1.58
Procedural satisfaction ratings				
Voice procedure	4.75	1.30	4.50	1.46
No-voice procedure	2.50	1.23	4.03	1.35
Negative procedural affect				
Voice procedure	1.45	0.76	2.24	1.31
No-voice procedure	2.73	1.45	2.07	1.35
Relational treatment evaluations				
Voice procedure	3.60	1.62	3.39	1.32
No-voice procedure	2.50	1.22	3.53	1.23
Decision acceptance ratings				
Voice procedure	4.75	0.87	4.13	0.95
No-voice procedure	3.11	1.24	3.53	0.69

Note. Higher means indicate more positive judgments on the dependent variable in question (except for negative procedural affect, where higher means indicate more negative affect).

ments, $F(1,78) = 12.94$, $p < .01$; for procedural satisfaction ratings, $F(1,78) = 36.74$, $p < .001$; for negative procedural affect, $F(1,78) = 13.19$, $p < .001$; for relational treatment evaluations, $F(1,78) = 8.23$, $p < .01$; and for decision acceptance, $F(1,78) = 33.38$, $p < .001$. Among prosocials, however, the procedure simple main effect was nonsignificant for all dependent variables: For procedural justice judgments, $F < 1$; for procedural satisfaction ratings, $F(1,78) = 1.47$, ns.; for negative procedural affect, $F < 1$; for relational treatment evaluations, $F < 1$; and for decision acceptance, $F(1,78) = 2.80$, $p > .09$. These results are in correspondence with Study 1 by showing that particularly proselfs are sensitive to voice versus no-voice procedures, thus corroborating the egocentric justice hypothesis.

It can further be noted here that, in the voice condition, the simple main effect of social value orientation was significant for negative procedural affect, $F(1,78) = 5.20$, $p < .03$, and for decision acceptance, $F(1,78) = 6.30$, $p < .02$, but it was nonsignificant for procedural justice judgments, $F(1,78) = 1.52$, ns., for procedural satisfaction ratings, $F(1,78) = 1.33$, ns., and for relational treatment evaluations, $F < 1$. In the no-voice condition, however, the simple main effect of social value orientation was significant for all dependent variables: For procedural justice judgments, $F(1,78) = 13.04$, $p < .01$; for procedural satisfaction ratings, $F(1,78) = 21.33$, $p < .001$; for negative procedural affect, $F(1,78) = 4.57$, $p < .04$; for relational treatment evaluations, $F(1,78) = 7.21$, $p < .01$; and for decision acceptance, $F(1,78) = 6.04$, $p < .02$. As in Study 1, these findings suggest that social value orientation has the potential to influence both positive responses to voice and negative responses to no-voice. It can be noted, however, that the effects of social value orientation on justice-based responses seem to be most robust for participants' negative responses to no-voice procedures. In the General discussion, we return to this issue.

Discussion

Both Studies 1 and 2 indicate that manipulations of voice versus no-voice procedures influence procedural justice judgments and satisfaction ratings more strongly among proselfs than among prosocials. Furthermore, in Study 2 these findings were extended to other justice-based perceptions and emotions, that is, relational

treatment evaluations, negative affect, and participants' willingness to accept decisions. These findings reveal that particularly recipients who are predisposed to reason egocentrically (i.e., proselfs) are sensitive to variations in decision-making procedures, which is reflected on a wide range of fairness-based responses.

Study 3

Study 3 was designed to extend the previous studies in two ways. First, we investigated the egocentric versus prosocial justice hypotheses in a within-group setting. Procedural justice essentially is a social phenomenon, and hence, it has been argued that group memberships have a pivotal role in understanding procedural justice processes (Cropanzano et al., 2001; Folger & Cropanzano, 1998; Lind & Tyler, 1988; Tyler & Blader, 2000; Tyler & Lind, 1992). Study 3 therefore sought to mimic everyday life situations where people are allowed or denied voice as part of a social group. Second, whereas Studies 1 and 2 focused on the influence of social value orientation and decision-making procedures on justice-based perceptions and emotions, in Study 3 we investigated potential behavioral implications of these findings. It has been noted that people regard authorities as representative for the group, and hence, being treated unfairly by an authority may deteriorate recipients' relation with the entire group (De Cremer, 2002; Tyler & Lind, 1992). As a consequence, unfair treatment may lead people to seek revenge towards the group, as the group is regarded as symbolic for the authority's actions. We measured negative behavioral intentions that are detrimental to group functioning by focusing on the explosion component of revenge responses (i.e., putting effort and energy into behavioral actions; Tripp & Bies, 1997). In particular, we asked participants to what extent they wanted to "take revenge", "cross the group plans", and "counteract the group task". These revenge intentions reflect a recent trend in justice research to focus on the retaliatory consequences of unfair treatment (Skitka & Crosby, 2003; cf. Darley & Pittman, 2003). According to the egocentric justice hypothesis, no-voice procedures should stimulate these retaliatory anti-group behaviors particularly among proselfs. According to the prosocial justice hypothesis, however, no-voice procedures should stimulate these retaliatory anti-group behaviors particularly among prosocials.

Method

Participants and design

The hypotheses were again tested in a design in which we measured social value orientations and randomly assigned participants to procedure conditions (voice versus no-voice). One hundred and seventeen undergraduate students from Tilburg University (77 females and 40 males; $M_{\text{age}} = 19.81$ years, $SD = 2.00$) participated in exchange for course credit.

Procedure

Upon arrival in the laboratory, participants were placed in an experimental cubicle containing a table, a chair, and a computer. Participants were led to believe that all interactions and communications would take place via the computer (which was believed to be connected to a general server). It was said that every participant would receive an experimental number.

As a supposedly first task, participants were asked to help out in validating a new questionnaire. This questionnaire was the Decomposed Games measure, which was identical to Studies 1 and 2. It turned out that, out of 117 participants, 44 participants were identified as prosocials, 51 participants as individualists, and 10 participants as competitors. A total of 12 participants could not be classified and were therefore excluded from further analyses. Indi-

vidualists and competitors were again combined into one category of proselers.

After having completed the SVO-questionnaire, participants were told that the second experiment would take place in a group context. All participants were put together in a group and they were informed that during the first part of this study they would have to participate in several tasks. At that time it was already said that successful completion of these tasks would reveal additional financial bonuses. These bonuses would be useful in the second part of the study where participants would have to participate in individual tasks. In these individual tasks financial resources could then be used to, for example, buy additional task information or even buy out the task assignment from the experimenter.

After this, participants were told that the tasks would start pretty soon, but that it first had to be decided how the financial resources (emerging from a successful completion of the tasks within the group) would be distributed in the group. It was then said that the experimenter would make a decision regarding the manner in which this allocation procedure should be implemented in the group. Then, the procedure manipulation was introduced. In the *voice condition*, participants received an email saying that their opinion would be asked with respect to the allocation decision. Thus, they would be listened to, and participants subsequently were enabled to write an email message to the experimenter. In the *no voice condition*, the email said that their opinion would not be asked. Thus, they would not be listened to, and these participants were not enabled to write an email message to the experimenter. In correspondence with previous research, participants were not informed about the procedure their fellow group members were subjected to Van den Bos et al. (1998), Van Prooijen et al. (2004, 2005).

Finally, the dependent measures were solicited. All questions were responded to on a 7-point scale (1 = *not at all*, 7 = *very much so*). To assess the effectiveness of the voice manipulation, participants were asked to what extent they felt that they were listened to with respect to allocating the financial resources. Then, negative behavioral intentions were assessed by asking participants to what extent they wanted to “take revenge”, “cross the group plans”, and “counteract the group task”. These items were combined to form one average negative behavioral intentions scale ($\alpha = .93$). Finally, participants were debriefed, given their course credit and thanked.

Results

Manipulation check

A 2 (SVO) \times 2 (procedure) ANOVA on the voice manipulation check question revealed only a significant main effect of procedure, $F(1, 101) = 432.92$, $p < .001$. Participants in the voice condition reported that they were listened to more than those in the no voice condition ($M_s = 5.78$ versus 1.35 , $SD_s = 1.02$ and 1.07 ; respectively). No significant main effect of SVO or interaction effect was found, $F_s < 1$. These findings revealed that participants perceived the procedure manipulation as intended.

Negative behavioral intentions

A 2 (SVO) \times 2 (procedure) ANOVA on the negative behavioral intentions scale revealed, first of all, a significant main effect of procedure, $F(1, 101) = 33.62$, $p < .001$. More importantly, the results also revealed a significant interaction, $F(1, 101) = 4.70$, $p < .05$. The means and standard deviations are displayed in Table 3. As predicted by the egocentric justice hypothesis, the procedure simple main effect was significantly stronger among proselers, $F(1, 101) = 39.13$, $p < .001$, $\eta^2 = .28$, than among prosocials, $F(1, 101) = 5.54$, $p < .05$, $\eta^2 = .05$.

It can further be noted here that the effect of social value orientation was nonsignificant within the voice condition, $F < 1$. The ef-

Table 3

Means and standard deviations of participants' negative behavioral intentions as function of social value orientations and procedure (Study 3)

Procedure	Social value orientation			
	Proself		Prosocial	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Voice	1.88	1.20	2.00	1.14
No-voice	4.17	1.67	3.04	1.50

Note. Higher means indicate more negative behavioral intentions.

fect of social value orientation was significant in the no-voice condition, however, $F(1, 101) = 7.03$, $p < .01$. Thus, social value orientation particularly influenced negative behavioral intentions when participants were denied voice opportunities. This is in correspondence with the assertion that these negative behaviors are associated with unfair treatment (Tripp & Bies, 1997), and provides further support for the notion observed in Study 2 that, on average, social value orientation particularly influences negative responses to no-voice procedures.

Discussion

Study 3 extended Studies 1 and 2 by indicating that social value orientation and decision-making procedures predict negative behavioral intentions, and by revealing that these effects emerge in an explicit within-group setting. These findings further suggest that the effects of granting versus denying voice opportunities are more pronounced among proselers than among prosocials. Taken together, Studies 1–3 revealed that numerous justice-based perceptions, emotions, and behavioral intentions are more sensitive to voice versus no-voice procedures among proselers than among prosocials, as predicted by the egocentric justice hypothesis.

Study 4

Studies 1–3 provided consistent support for the egocentric justice hypothesis. Study 4 was designed to extend these studies in three meaningful ways. First, the results of Studies 1–3 are limited to the effects of voice versus no-voice procedures. Although these variations in decision-making procedures have a strong and robust influence on justice-based responses and are central to many procedural justice studies, there are more criteria that determine whether people judge procedures to be fair or unfair (Leventhal, 1980). In Study 4, we therefore focused on general perceptions of procedural justice instead of specific manipulations of voice versus no-voice. In particular, we measured the procedural justice scale that was validated by Colquitt (2001), which is based on a variety of Leventhal's procedural justice criteria.

Second, the results of Studies 1–3 are limited to the psychological laboratory and to the specific population of university students. Although laboratory experiments are very well-suited to investigate the causal influence of theoretical constructs on the dependent variables while assuring high internal validity, one may question whether the processes observed in the laboratory generalize to situations outside of the laboratory and to different populations. For instance, Study 3 sought to investigate the egocentric versus prosocial justice hypotheses in a within-group setting, but to this end, the study focused on instantly created laboratory groups in which the members had no previous history or anticipation of future interaction. To get an indication of the generalizability of the present findings, we investigated whether further evidence for our conclusions could be obtained outside of the psychological laboratory. In Study 4, we therefore investigated

the egocentric versus prosocial justice hypotheses in a large-scale survey among a random sample of the Dutch working population. This population not only differs from university students, but also allows for a test of the egocentric justice hypothesis in a real-life intragroup setting with existing and ongoing interdependence structures between its members.

As a third extension, in Study 4 we conducted a more stringent test of the question whether the predicted effects would hold after controlling for participants' instrumental concerns. Studies 1 and 2 provided preliminary support for the idea that non-instrumental concerns contribute to differences between proselves and prosocials in procedural justice effects, given that the data revealed no differences between proselves and prosocials in the opinions that they ventilated if they were allowed voice. To more completely exclude the possibility that instrumental motives alone can account for the described effects, we measured procedural justice as well as distributive justice in the context of salary decisions. We reasoned that in such an outcome-focused context a lot of variance in fairness-based responses to procedures could potentially be explained by people's distributive justice concerns. Hence, we sought to investigate whether, even in such an instrumental setting, the egocentric justice hypothesis would materialize while controlling for distributive justice concerns. This would further strengthen our confidence that the relation between social value orientation and procedural justice can not be attributed to instrumental motives alone. To measure perceived distributive justice, we assessed the distributive justice scale that was identified by Colquitt (2001) as being distinct from, yet strongly correlated to, procedural justice. If also non-instrumental concerns contribute to the difference between proselves and prosocials in procedural justice effects, then the predicted effects should emerge even after controlling for these distributive justice concerns. Study 4 was thus designed to establish that the relation between social value orientation and procedural justice is empirically distinct from the relation between social value orientation and distributive justice.

Like in Studies 1 and 2, we used our participants' satisfaction as dependent measure. In addition, we also measured organizational citizenship behaviors (Moorman & Blakely, 1995). These are behaviors that rarely are described in employees' formal job requirements but that are essential to healthy organizational functioning. As such, the measurement of organizational citizenship behaviors extends Study 3 (that focused on negative behaviors) by examining the implications of the egocentric justice hypothesis for positive behaviors. We predict the relations between procedural justice and the two dependent variables to be stronger for proselves than for prosocials.

Method

Sample and procedure

This study was part of a large study about leadership, power, and fairness. A total of 973 Dutch people who worked for at least eight hours a week and who had a supervisor were selected from the national postal guide. They were sent a letter in which they were asked to participate in "a study on work experience", by filling out the enclosed questionnaire and returning it in the prepaid envelope. Participation would be completely anonymous. Of these 973 questionnaires, 16 were returned because the addressee no longer lived there, leaving 957 questionnaires that actually reached the intended respondents. A reminder was sent to all intended respondents two weeks after the first mailing.

A total of 359 questionnaires were returned (a response rate of 38%), with 65% of the participants being male and 35% being female ($M_{age} = 42.71$ years, $SD = 10.26$). Of the respondents, 2% had only lower education (primary school), 39% had followed up on this by secondary education only, 25% had followed up on their

secondary education with vocational education, 23% had a bachelor, and 9% had a master degree. Only 1% indicated that they had "another" education. Furthermore, 38% had a net month salary below €1500, 35% earned between €1500 and 2000, 14% earned between €2000 and 2500, and 14% earned more than €2500. The respondents had worked, on average, for 11.94 years with their current organization ($SD = 10.66$) and for 8.49 years ($SD = 9.93$) in their current job.

Questionnaire

To measure employees' Social Value Orientation, we used the same nine-item Decomposed Game measure as in our previous studies. Out of a total number of 359 individuals, 44 people could not be classified and were therefore excluded from further analyses. Of the 315 remaining individuals, 193 (61%) were identified as prosocials, 98 (31%) as individualists, and 24 (8%) as competitors. In correspondence with the previous studies, individualists and competitors were combined to form one group of proselves ($n = 122$).

All other items were answered on 5-point scales (1 = *disagree*, 5 = *agree*). Prior to assessing procedural and distributive justice, participants were informed that they would respond to a number of questions that pertained to their salaries and to the procedures used to determine their salaries. Perceived procedural justice was assessed with the 7-item procedural justice scale of Colquitt (2001), containing the procedural justice rules proposed by Leventhal (1980). The items were introduced with: "When your salary was determined, to what extent did you experience that..."; followed by, for example: "you were able to express your views and feelings?"; "the used procedures were applied consistently?"; and "the used procedures were based on accurate information?". The items were averaged into a reliable procedural justice scale ($\alpha = .85$).

To measure distributive justice, participants responded to the 4-item distributive justice scale of Colquitt (2001). This scale contains the following items: "Does your salary reflect what you have contributed to the organization?", "Is your salary appropriate for the work you have completed?", "Does your salary reflect the effect you have put into your work?", and "Is your salary justified, given your performance?" These items were averaged into a reliable distributive justice scale ($\alpha = .95$).

Participant's satisfaction was measured with the following two items: "In doing my job, I often feel satisfied.", and "In doing my job I often feel positive." These two items were averaged into a reliable satisfaction scale ($\alpha = .82$).

Participants' Organizational Citizenship Behavior (OCB) was assessed with nine items taken from Moorman and Blakely (1995), including "I go out of my way to help co-workers with work-related problems", "I frequently adjust my work schedule to accommodate other employees' requests for time-off", "I always go out of my way to make newer employees feel welcome in the work group", "I show genuine concern and courtesy toward co-workers, even under the most trying business or personal situations", "I frequently communicate to co-workers suggestions on how the group can improve", "I perform my duties with unusually few errors", "I perform my job duties with extra-special care", "I encourage friends and family to utilize organization products", "I defend the organization when outsiders criticize it." These nine items were averaged into a reliable OCB scale ($\alpha = .74$).

Results

The means, standard deviations, and intercorrelations of perceived distributive justice, perceived procedural justice, and the two dependent variables (OCB and satisfaction) are displayed in Table 4. In correspondence with previous research, distributive

and procedural justice were substantially correlated (Colquitt, 2001). To analyze the results, we first centered participants' answers on the distributive and procedural justice scales, effect-coded the SVO categories, and computed two interaction terms. The first was based on the product of the centered procedural justice scale and the effect-coded SVO scale. The second (control term) was based on the product of the centered distributive justice scale and the effect-coded SVO scale (see Hull, Tedlie, & Lehn, 1992). In our subsequent hierarchical regression analyses, we entered the main effect of the control variable (distributive justice) as well as the main effect terms (SVO and procedural justice) at Step 1. Both interaction terms were entered at Step 2 (Cohen, Cohen, West, & Aiken, 2003).

The hierarchical regression results are displayed in Table 5. Results indicated that Step 1 accounted for a significant part of the variance for both OCB, $\Delta R^2 = .17$, $F(3,308) = 5.20$, $p < .01$, and for satisfaction, $\Delta R^2 = .17$, $F(3,305) = 20.33$, $p < .001$. As displayed in Table 5, perceived procedural justice was significantly related to OCB, and distributive justice, procedural justice, and SVO all exerted main effects on satisfaction. More important for the current purposes was that Step 2 was significant for OCB, $\Delta R^2 = .02$, $F(1,307) = 5.31$, $p < .05$, and that the predicted interaction was significant ($\beta = .17$, $p < .05$). Simple slopes analyses indicated that for proselves, procedural justice significantly predicted OCB ($\beta = .47$, $p < .001$), but for prosocials, the relation between procedural justice and OCB was nonsignificant ($\beta = .13$, $p < .17$). Step 2 was also significant for satisfaction, $\Delta R^2 = .01$, $F(1,304) = 4.04$, $p < .05$, revealing the predicted interaction ($\beta = .15$, $p < .05$). Simple slopes analyses revealed that the relation between procedural justice and satisfaction was stronger for proselves ($\beta = .57$, $p < .001$) than for prosocials ($\beta = .27$, $p = .01$). These findings, which are displayed graphically in Figs. 1 and 2, are in correspondence with the findings of Studies 1–3.

It is noteworthy that, among participants who scored low on the procedural justice scale, SVO significantly predicted both OCB ($\beta = -.19$, $p < .05$) and satisfaction ($\beta = -.21$, $p < .05$). Among participants who scored high on the procedural justice scale, SVO was unrelated to both OCB ($\beta = -.15$, $p < .11$) and satisfaction ($\beta = -.08$, $p < .40$). These findings further correspond to the general trend observed in the present studies that social value orientation particularly predicts responses to procedural unfairness.

Discussion

Study 4 again supported the egocentric justice hypothesis. These findings suggested that the processes described in this article generalize beyond experimental manipulations of voice versus no-voice procedures, and that similar processes can be observed both within and outside the psychological laboratory. Furthermore, Study 4 provided evidence that the described effects emerge even when we control for participants' distributive justice concerns, suggesting that the relation between procedural justice and social value orientation cannot be accounted for by instrumental motives alone.

Table 4
Means, standard deviations, and intercorrelations of distributive justice, procedural justice, organizational citizenship behaviors (OCB), and satisfaction (Study 4)

	M	SD	1	2	3	4
1. Distributive justice	2.53	1.24	—			
2. Procedural justice	2.78	0.87	.64***	—		
3. OCB	3.72	0.46	.09	.17**	—	
4. Satisfaction	1.91	0.94	.24**	.37***	.36***	—

Note. N = 315. *p < .05; **p < .01; ***p < .001.

Table 5
Results from hierarchical regression analyses: organizational citizenship behaviors (OCB) and satisfaction as a function of social value orientation and procedural justice (Study 4)

Regression step	OCB		Satisfaction	
	β	t(308)	β	t(305)
Step 1				
Distributive justice	-.10	-1.51	-.12	-1.93*
Social value orientation (SVO)	-.05	-0.81	.11	1.99*
Procedural justice (PJ)	.25	3.70***	-.29	-4.62***
Step 2				
SVO × PJ	.17	2.30*	.15	2.13*
SVO × DJ	-.11	-1.53	-.05	-.74

Note. *p < .05; ***p < .001.

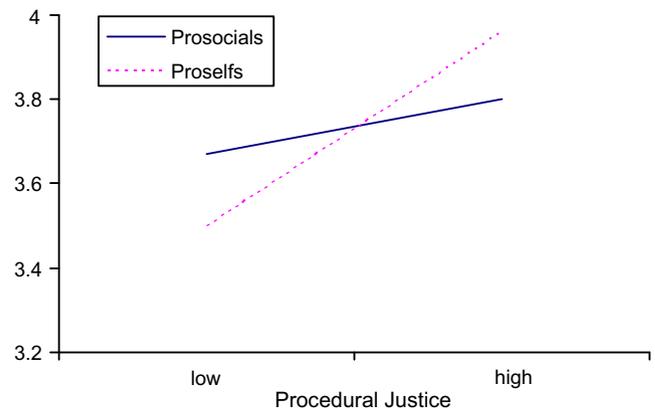


Fig. 1. Organizational citizenship behavior as a function of social value orientation and procedural justice (Study 4).

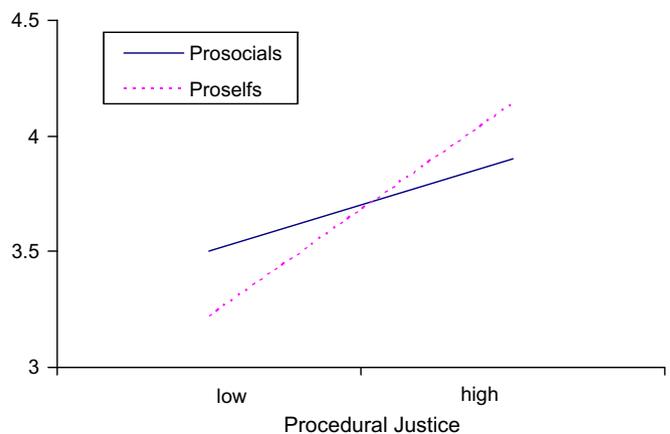


Fig. 2. Satisfaction as a function of social value orientation and procedural justice (Study 4).

General discussion

Results of three experiments (Studies 1–3) and one field study (Study 4) consistently revealed that procedural justice effects are more pronounced among proselves than among prosocials. Evidence for this idea was found on numerous fairness-based perceptions, emotions, and behavioral intentions, including procedural justice judgments and satisfaction ratings (Studies 1, 2, and 4), relational treatment evaluations, negative procedural affect, and willingness to accept decisions (Study 2), negative behavioral intentions (Study 3), and organizational citizenship behaviors (Study 4). Furthermore, the findings replicated across interpersonal settings (Studies

1 and 2), a laboratory group setting (Study 3), and a generalized applied setting (Study 4). These findings extend scientific knowledge on procedural justice by specifying how people's social value orientation may predispose people to respond to decision-making procedures in systematic ways. Furthermore, the current findings suggest that recipients' fairness-based responses to decision-making procedures are substantially inspired by egocentric concerns. After all, proselves, who are predisposed to be oriented towards benefiting themselves during the decision-making process, are much more sensitive to these procedures than prosocials, who are predisposed to rely on moral principles during social decision-making.

Such egocentrism in fairness-based responses is consistent with Epley and Caruso (2004) view on what they refer to as "egocentric ethics". These authors proposed that ethical judgments (which are strongly related to fairness judgments; cf. Lind & Tyler, 1988) are much more self-serving in nature than people realize when making those judgments. The reason for this is, according to these authors, that people automatically interpret their perceptions of the surrounding social world egocentrically (e.g., people directly experience their own perspective but must infer other's perspectives), and in addition, people automatically interpret moral stimuli as positive or negative. The combination of these processes most likely produces judgments that are based on whether the event is positive or negative to the self. These propositions are in correspondence with the current findings, we think, given that in our studies decision-making procedures stimulated fairness-based judgments particularly among individuals that are predisposed to reason egocentrically (i.e., proselves). Furthermore, the current findings are consistent with both instrumental and non-instrumental models of procedural justice. These models converge on the assumption that people care about fair decision-making processes because of the positive implication that fair procedures hold for the self, either in instrumental ways (e.g., obtaining favorable material outcomes) or in non-instrumental ways (e.g., gaining respect from others, establishing a positive sense of self-worth).

The present findings also make a novel contribution to the literature regarding social value orientation. This literature, which is rooted in the seminal work of Messick and McClintock (1968), has focused primarily on *outcomes*, often tangible outcomes such as money, points, and services (e.g., Eisenberger et al., 1992; Kuhlman & Marshello, 1975; McClintock & Liebrand, 1988; Parks, 1994). In fact, social value orientations are often conceptualized in terms of "outcome transformations," or preferences that take into account the outcomes for others (Kelley et al., 2003; Van Lange, 1999; Van Lange et al., 2007). Also, social value orientations are strongly related to beliefs regarding other's cooperativeness, to response latencies for making decisions in outcome-relevant situations, as well as the construal of cooperative and noncooperative partners in terms of moral evaluations and judgments in terms of strength and weakness (Dehue et al., 1993; Liebrand et al., 1986; Sattler & Kerr, 1991). In these contexts, differences in the weight assigned to outcomes for self and other are assumed to drive cognitions, affect, and behavior. Thus, previous research about social value orientation almost exclusively focused on social situations that involve questions about distributive justice.

In the present research, we focused on social value orientation as a predictor in situations that involve questions about procedural justice, a justice conceptualization that is empirically and theoretically distinct from distributive justice (Thibaut & Walker, 1975; Tyler & Lind, 1992). It is of course possible that differential responses to procedures between proselves and prosocials can partly be accounted for by instrumental motives: "Using" procedures in such a manner as to enhance outcomes for self (proselfs), or collective outcomes and equality in outcomes (prosocials). Such a distinction in instrumental interpretations of decision-making procedures between proselves and prosocials would be an innova-

tive insight in its own right: People to some extent use procedures as proxy to make inferences about expected outcomes (e.g., Thibaut & Walker, 1975; Van den Bos & Lind, 2002), and this process might be particularly pronounced for proselves. Although this instrumental explanation is plausible, it is unlikely that instrumental motives *alone* can fully account for the present findings. After all, in Study 4 we empirically controlled for participants' distributive justice concerns, and we still found the predicted effects. This suggests that proselves are influenced by procedural justice not only for instrumental reasons but also for non-instrumental reasons.

Besides instrumental motives, it is likely that proselves (versus prosocials) regard it as more important that they are acknowledged and respected in procedures, which suggest potential differences between prosocials and proselves in self-relevant motives such as the need for recognition, desire to be respected, or the need to belong. This possibility, suggested by the present findings, may inspire not only greater conceptual integration of various topics (e.g., connecting procedural justice, "the self" and cooperation and competition) but also intriguing new questions. For example, how do prosocials and proselves evaluate situations when others—not they themselves—are granted versus denied voice? How do prosocials and proselves respond to implicit or explicit threats of social exclusion (Van Beest et al., 2003)? But the most urgent question to be addressed is why exactly are proselves so sensitive to the denial of voice—or why exactly are prosocials relatively "easy" in dealing with procedures in which their voices are denied? These questions suggest that the relation between social value orientation and procedural justice may provide a promising field of future research.

Qualifications of the present studies

Results of Studies 1–3 consistently revealed that proselves responded more negatively to no-voice procedures than prosocials on all dependent variables. Responses to voice procedures were less consistent: Whereas proselves responded more positively to voice procedures than prosocials on some of the dependent variables (procedural justice and satisfaction in Study 1, and negative procedural affect and decision acceptance in Study 2), prosocials and proselves did not differ in responses to voice procedures on other dependent variables (procedural justice judgments, satisfaction ratings, and relational treatment evaluations in Study 2, and negative behavioral intentions in Study 3). This pattern was consistent with Study 4, in which social value orientation was particularly associated with responses to perceived procedural injustice. Apparently, although responses to both fair and unfair procedures have the potential to be influenced by social value orientation, it can be concluded that the influence of social value orientation on negative responses to procedural injustice is more robust than the influence of social value orientation on positive responses to procedural justice. This suggests that differential procedural justice effects as a function of social value orientation emerge because proselves feel (more strongly—and perhaps more rapidly—than prosocials) offended by unfair procedures. Perhaps the injustice communicated by unfair procedures constitutes a self threat, and this self threat has more impact on individuals who are individually instead of socially oriented during allocation decisions. Moreover, it has been argued before that the negative impact of injustice on people's fairness-based reactions is stronger than the positive impact of justice (e.g., Folger, 1984; Folger & Cropanzano, 1998; Van den Bos & Van Prooijen, 2001; Van Prooijen et al., 2006; cf. Baumeister, Bratlavsky, Finkenauer, & Vohs, 2001), and as a consequence, particularly responses to unfair procedures may be sensitive to personality differences.

Importantly, we wish to emphasize here that the current findings do not imply that prosocials do not care about procedural justice, or that fairness-based judgments are completely egocentric in nature. In this regard, it is important to note that the present studies were

limited to situations where participants themselves are the target of procedural justice or injustice, and that social comparison information (i.e., information about the procedures others are subjected to) was not available in Studies 1–3 of the present article. Such an individualistic approach is common in the vast majority of procedural justice studies, given that procedural justice theories seek to explain people's responses to personal experiences of procedural justice or injustice (for overviews, see Folger & Cropanzano, 1998; Lind & Tyler, 1988; Tyler & Blader, 2003; Tyler & Lind, 1992). Furthermore, in everyday life it is likely that people often take their own personal experiences as point of departure when evaluating the fairness of decision-making procedures (cf. Epley & Caruso, 2004). This assumption is reflected by our finding that also in an applied setting, where participants are likely to be aware of the procedures that their colleagues are subjected to, proselves are more responsive to procedural justice than prosocials (Study 4). Nevertheless, it is plausible that prosocials also attach importance to procedural justice, albeit in different ways than proselves. For instance, sometimes people may be explicitly focused on procedural injustice that is imposed on others, and given their concern for others, prosocials may be more likely than proselves to be attentive to procedural justice or injustice that targets others. Proselfs, however, are less likely to be influenced by whether or not other recipients receive voice or no-voice, and are likely more focused on whether they themselves are granted or denied voice. These ideas are clearly beyond the scope of the current article, but they do suggest fruitful avenues to further explore how social value orientation influence responses to decision-making procedures.

Concluding remarks

In the present article, we have advanced two distinct models for understanding the strong psychological responses when people are subjected to fair versus unfair procedures. One of these models describes recipients' strong reactions to voice versus no voice, and complementary differences in procedural justice, in terms of "prosocial" motives, such as social norms, values, or principles that dictate fairness and impartiality. This model, while not implausible, is not supported in the present research. Rather, the present research suggests that recipients' fairness-based responses to decision-making procedures can be understood in terms of self-oriented motives, such as instrumental concerns (e.g., affecting outcomes through voice), or desires that can only be provided by others (e.g., respect, status, or belonging). One might speculate that people may often publicly respond to unfair procedures by emphasizing violation of "unselfish" principles, moral values and the like, yet privately it is perhaps the violation of self-relevant concerns such as being valued and appreciated that matters most. As such, noting that people care about justice is one thing, understanding why they do is quite another challenge. Informed by our own research, we suspect that self-relevant motives, such as strivings for both beneficial outcomes as well as respect, status, and belonging, are basic to understanding why unfair procedures exert negative effects on so many human perceptions and behaviors.

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