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For love or money? How activation of relational versus instrumental concerns affects reactions to decision-making procedures ☆

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Abstract

We investigate how the direct activation of relational versus instrumental concerns affects reactions to decisions made by an authority. It is demonstrated that when instrumental concerns are experimentally induced, people's evaluations of the authority (Studies 1 and 2) as well as their intentions to protest (Study 3) are more strongly affected by how the procedures used by the authority affect anticipated outcomes (i.e., whether procedures are favorably or unfavorably inaccurate) than when relational concerns are activated. By contrast, authority evaluations (Study 2) and protest intentions (Study 3) are more strongly affected by whether procedures used are fair (accurate) or unfair (inaccurate) when relational (versus instrumental) concerns are activated. These findings extend previous research where relational versus instrumental concerns were inferred, but not directly examined, to explain differences in responses to authorities' decisions.

Keywords: Procedural fairness; Outcome favorability; Procedure favorability; Relational concerns; Instrumental concerns; Goal activation

An impressive body of findings demonstrates that evaluations of authorities and reactions to authorities' decisions are positively affected by the perceived fairness of decision-making procedures used by the authority. Such phenomena have been demonstrated in various different social interactions, such as in encounters with legal authorities, organizational managers, police officers, and authorities in laboratory settings (for overviews, see Cropanzano, Byrne, Bobocel, & Rupp, 2001; Folger & Cropanzano, 1998; Lind & Tyler, 1988; Tyler, Boeckmann, Smith, & Huo, 1997; Tyler & Smith, 1998).

But why do people react so strongly to whether decision-making procedures are fair or not? Several different explanations have been suggested in the justice literature. The first explanation offered was that procedural justice effects stem from concerns about outcomes (Thibaut & Walker, 1975). Specifically, it was proposed that people value and perceive procedures as fair when they provide *control* over decision outcomes. Such control may be direct, as when people have the possibility to overrule undesirable decisions (decision-control), or indirect, as when people may influence the decision-making process by presenting arguments for their cause (process-control). Because people's concerns about procedures from this perspective are assumed to be ultimately driven by a motive to attain positive outcomes, these procedural fairness concerns have been referred to as *instrumental* concerns (e.g., Tyler & Lind, 1992). Another influential explanation that has been put forward in the relational model of authority (Tyler & Lind, 1992; cf. Lind & Tyler, 1988) is that procedural justice effects are primarily attributable to concerns about

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one's social identity. From this perspective, procedural fairness effects are thought to occur because people are concerned about the relationship to the authority and the group the authority represents. According to this view, people react positively to fair treatment because it indicates that they are *respected* by the authority, that they have relatively high *status* in the group, that the authority is *trustworthy*, and is trying to provide a *neutral* and level playing field (Lind & Tyler, 1988; Tyler & Lind, 1992). Some researchers have suggested that it may not be the relative status position in the group that is of primary importance, but rather the perceived level of inclusion in the group (e.g., Lind, 2001; Van Prooijen, Van den Bos, & Wilke, 2004). More importantly for the present purposes, these accounts have in common the assumption that fair procedures are valued because they indicate a positive social identity, and hence should have positive effects on self-esteem (Koper, Van Knippenberg, Bouhuijs, Vermunt, & Wilke, 1993). Because these procedural concerns are assumed to be driven by a motive to evaluate one's position in the group, and ultimately one's social identity, these concerns are referred to as *relational* concerns.

Numerous studies, using different research methodologies, are relevant to the question of which of the two explanations best accounts for the positive effects of procedural justice on reactions to decisions (e.g., Huo, 2003; Huo, Smith, Tyler, & Lind, 1996; Lind, Kanfer, & Earley, 1990; Smith, Tyler, Huo, Ortiz, & Lind, 1998; Ståhl, Van Prooijen, & Vermunt, 2004; Tyler, 1989, 1994; Tyler & Degoey, 1995). However, no studies to date have used the most direct and conclusive approach to test how and to what extent instrumental and relational concerns influence reactions to authorities' decisions. That is, so far there has been no empirical research in which instrumental versus relational concerns were directly manipulated to compare their relative impact on reactions to authority treatment. As a result, it is yet unknown whether variations in any (or both) of the concerns proposed to account for procedural fairness effects indeed affect how people react to different procedures used by an authority. This is the aim of the present research, and to this end we report three studies in which we investigate directly how instrumental and relational concerns affect reactions to different types of decision-making procedures. In doing so, we aim to demonstrate that *both* instrumental and relational concerns affect how people react to procedures, albeit in different ways. More specifically, it will be argued that while relational concerns lead people to respond to the fairness of procedures, instrumental concerns make people respond to how procedures affect anticipated outcomes. Before we delineate the specifics of the present research, however, we shall review relevant research in more detail.

Inferred effects of relational and instrumental concerns

Different attempts have been made to infer the validity of relational versus instrumental explanations of procedural fairness effects. The most frequently used methodology has been to assess the strength of associations between relational measures and instrumental measures on the one hand and perceived procedural fairness on the other (e.g., Tyler, 1989, 1994). A typical finding from these studies is that self-reported relational concerns are more strongly associated with procedural fairness judgments than are self-reported instrumental concerns (Tyler, 1994).

Lind et al. (1990) approached this issue by examining reactions to the most frequently used manipulation of procedural fairness; an opportunity to voice one's opinion in a decision-making process (e.g., Folger, 1977). Specifically, participants were allowed to voice their opinion either before (pre-decision voice) or after a decision had been made (post-decision voice). People were found to react positively to an opportunity to voice (versus no voice) even after the decision had been made. Lind et al. (1990) argued that, because people react positively to an opportunity to voice even when their opinion can no longer influence the decision, non-instrumental components are needed to account for the positive effects of voice on reactions to decisions. However, the nature of the non-instrumental components suggested to contribute to voice effects could not be determined on the basis of this study. Furthermore, people still reacted more positively to pre-decision voice than to post-decision voice. Whether this implies that instrumental concerns about process-control played a part, or whether pre-decision voice was valued more than post-decision voice for non-instrumental reasons remains unknown.

Another attempt to address this issue was made by Van Prooijen, Van den Bos, and Wilke (2002) who investigated the causal role of status salience in reactions to procedural fairness. In two experiments the salience of the concept of status was manipulated, followed by a manipulation of procedural fairness. The results of both studies indicated that reactions to procedural fairness become stronger when the concept of status is made salient rather than non-salient. In addition, the second study demonstrated that the concept of fairness becomes more cognitively accessible when status is salient rather than non-salient. Van Prooijen et al. explain these findings by arguing that concerns about status play a causal role in procedural fairness effects, because of the relational implications of information about status (Tyler & Lind, 1992). However, it should be noted that in many situations information about one's status can also carry instrumental benefits, and that the operation of relational concerns (as compared to instrumental concerns) was not directly measured in this research. Furthermore, Van Prooijen et al. did not compare the impact of their status salience manipulation to a manipulation that enhanced the salience of distinctly instrumental concepts. As a result, it is yet unknown to what extent distinctly relational concerns indeed played a role, and whether similar (or different) effects would be obtained when making instrumental concerns more salient.

Other studies have tried to infer the impact of relational and instrumental concerns in determining reactions to

treatment by authorities by investigating *when* people's reactions are strongly influenced by procedural fairness. For example, several studies have demonstrated that people's willingness to accept decisions is more strongly associated with perceived procedural fairness when they identify strongly (versus weakly) with the group the authority represents (e.g., Huo, 2003; Huo et al., 1996; Tyler & Degoey, 1995). Furthermore, experimental studies have shown that procedural fairness generally has more pronounced effects on reactions to decisions when the authority is from an ingroup rather than from an outgroup (Smith et al., 1998; Ståhl et al., 2004), or when people are included in rather than excluded from a group (Van Prooijen et al., 2004). These findings are consistent with a relational explanation of procedural fairness effects when we assume that information about the social standing of the self becomes more important when the authority that conveys this information through the fairness of procedures is more relevant to one's social identity (Tyler & Lind, 1992).

By contrast, the relational model suggests that responses to less identity-relevant authorities' decisions should be more influenced by the *favorability* of outcomes and procedures. This is expected because under these conditions people should not be particularly concerned about the relational information conveyed by the authority (low relational concerns), but primarily about what they can gain from the encounter in terms of resources (high instrumental concerns). Indeed, research has demonstrated that willingness to accept decisions is more strongly associated with outcome favorability (e.g., Huo et al., 1996) and that people to a larger extent react to procedures in terms of how they affect anticipated outcomes (i.e., procedure favorability, Ståhl, Vermunt, & Ellemers, 2006) when people identify weakly (versus strongly) with the group the authority represents. In a similar vein, people are more strongly affected by the favorability of outcomes (Duck & Fielding, 2003) and procedures (Ståhl et al., 2004) when the authority is from an outgroup rather than from an ingroup.

Testing the assumed psychological processes

Taken together, the research reviewed above is consistent with the idea that people react strongly to the fairness of procedures particularly when they have strong relational concerns. By contrast, several of the studies reviewed above seem to suggest that people react more strongly to the favorability of outcomes when instrumental concerns are enhanced. Moreover, several studies also indicate that, when instrumental concerns are enhanced, people do not react to *procedures* based on whether they are fair or not, but based on how those procedures affect anticipated outcomes (Ståhl et al., 2004, 2006). However, although a substantial number of studies obtained evidence consistent with these hypotheses, no studies to date have actually tested them directly.

First of all, many of the studies reviewed above used a correlational approach. Although correlational studies can be highly suggestive, they cannot confirm causal relationships. For example, the fact that self-reported relational concerns are strongly associated with self-perceived procedural fairness (e.g., Tyler, 1994) does not reveal whether relational concerns influence perceived procedural fairness, whether perceived procedural fairness influences relational concerns, or whether both depend on a third factor. Thus, to enable strong conclusions about causality, an experimental approach is warranted, as this makes it possible to manipulate the activation of relational versus instrumental concerns, and examine its consequences.

A second issue is that in research to date, rather than manipulating relational and instrumental concerns directly, these concerns have been assumed to vary as a function of other manipulations (e.g., authority's group membership) or measures (e.g., ingroup identification). Thus, although the operation of relational versus instrumental concerns has been inferred to account for a range of findings observed in different studies, it was never established that such concerns were activated, nor was it examined whether these concerns actually caused the responses that were observed. In other words, so far studies in this area of research have not directly examined whether variations in relational versus instrumental concerns actually *cause* different responses to procedures used by an authority.

In the present research we aim to address these issues. To this end we report three studies to demonstrate that a direct manipulation of relational versus instrumental concerns affects how people react to the decision-making procedures used by an authority. Two hypotheses will be tested in these studies. The first hypothesis concerns how people react to procedures when instrumental concerns are salient. Because instrumental concerns are essentially outcome-oriented, we expect that salient instrumental concerns should cause people to react to procedures used by the authority based on how those procedures affect anticipated outcomes. Specifically, it is expected that people will react more positively to procedures that yield favorable rather than unfavorable expectations about subsequent outcomes when instrumental concerns are salient, but not when relational concerns are salient.

The second hypothesis to be tested here concerns how people react to procedures when relational concerns are salient. Based on theory and research reviewed above, we predict that people with salient relational concerns should react more strongly to the fairness (versus unfairness) of procedures than people with salient instrumental concerns.

Overview of studies

How can instrumental and relational concerns be manipulated directly? Let us first turn back to the meaning of these concepts and how they relate to more general social psychological concepts. As stated previously, when people are instrumentally concerned, they are ultimately motivated to evaluate the outcomes they receive. When people are relationally concerned, on the other hand, they

are motivated to evaluate their position in the group in terms of whether they are respected and valued members, whether the authority is trustworthy, and whether the authority is neutral (Tyler & Lind, 1992). In social-cognitive terminology, these conceptualizations imply the operation of two different *information processing goals*. People with instrumental concerns should have a goal to evaluate anticipated outcomes (an instrumental processing goal). By contrast, being relationally concerned implies having a goal to evaluate one's position in the group (a relational processing goal). Once one of these goals becomes activated, a corresponding mindset should also become activated, by which people select a strategy to reach the goal (e.g., Stapel & Koomen, 2001, 2005). Specifically, when in an instrumental mindset, people are expected to adopt a strategy in which they evaluate properties of the procedures that are likely to affect anticipated outcomes (i.e., procedure favorability). When in a relational mindset, people are expected to adopt a strategy in which they evaluate properties of procedures that have implications for their relationship to the authority and the group (i.e., procedural fairness). Based on this analysis we conclude that an appropriate way to examine direct effects of instrumental and relational concerns should be by manipulating people's information processing goals.

The critical question is then how different information processing goals can be experimentally manipulated. Notably, a growing body of findings suggests that goals can be activated in similar ways as other mental representations (Bargh, 2006). For example, goals and mindsets can be activated by explicitly instructing people to think about or work towards the goal (see Bargh & Chartrand, 2000). Once the goal has become activated, residual effects of goal activation can be observed on completely unrelated tasks. However, goal activation does not require explicit instructions to think about or work towards the goal. Goals can also be activated by means of implicit conceptual priming procedures frequently used to activate other kinds of mental representations (e.g., Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trotchel, 2001; Stapel & Koomen, 2001, 2005).

In the present studies, we used relatively explicit as well as more implicit methods to activate instrumental and relational processing goals. In the first study, we set out to obtain preliminary support for the previously untested hypothesis that reactions to decisions are more strongly affected by the favorability of procedures when instrumental concerns are salient than when relational concerns are salient. To manipulate instrumental versus relational processing goals we explicitly asked people to think about a situation in which instrumental or relational concerns were salient (cf. Van den Bos, 2001; Van Prooijen et al., 2002). This was followed by a manipulation of procedure favorability. In correspondence with previous studies (Ståhl et al., 2004, 2006) participants' experienced a procedure that was relatively unfair (i.e., inaccurate, Leventhal, 1980) in the sense that only some (rather than all) relevant information was used by the authority to make a decision. What was varied between conditions was whether the procedure indicated that the participant's outcome would be favorable or unfavorable.

To examine whether the influence of procedure favorability was dependent on the operating processing goal we measured people's evaluations of the authority. The rational behind our choice of dependent variable was twofold. First and foremost, we were interested in motivational rather than perceptual processes. Specifically, we were not interested in observing differences in the way procedures were *perceived* as a result of different processing goals. For the present purposes, measures of how the procedure was perceived were more appropriately treated as checks of the procedure manipulation. Rather, we were interested in whether processing goals moderated the *value* of procedure favorability. As a result, the critical question was to what extent the favorability of procedures affected more general evaluations when instrumental versus relational processing goals were operating. Second, along with reactions to particular decisions (e.g., decision acceptance, protest intentions), authority evaluations constitute some of the most common dependent variables in research on the influence of procedural fairness (and favorability, e.g., Ståhl et al., 2004; Tyler & Lind, 1992; Van Prooijen et al., 2002). Thus, a focus on authority evaluations ensured some comparability with previous research.

The second study intended to obtain converging evidence for our predictions, using a different methodology. Specifically, instrumental and relational processing goals were manipulated by means of unobtrusive conceptual priming procedures. Then participants read a short scenario in which the procedure was manipulated. At the same time we expanded the experimental design by including a fair condition, in which the authority considered all relevant information when making a decision (cf. Ståhl et al., 2004). In addition to examining the first hypothesis, this enabled a test of the second hypothesis; that authority evaluations are more strongly affected by the fairness of procedures when relational concerns are salient than when instrumental concerns are salient. Dependent variables again focused on participants' evaluations of the authority.

Finally, in the third study we examined whether our findings generalize to measures more closely linked to behavioral responses (i.e., protest intentions, Ajzen, 1991). Instrumental and relational processing goals were once again manipulated by means of conceptual priming procedures, after which participants actually experienced and responded to variations in procedure.

Experiment 1

Method

Participants and design

Students ($N = 97$) at the University of Skövde (male = 33; female = 64; $M_{age} = 25$ years) were randomly

assigned to conditions in a 2 (salience: relational/instrumental) × 2 (procedure: favorable/unfavorable) factorial design. All participants received a movie-ticket for their time in the laboratory.

Procedure

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

In the first part of the instructions it was explained that they participated in the experiment together with another person. Participants were also informed that during the experiment they would receive messages from the experimenter by means of the computer network (in reality, all information was pre-programmed). After that, participants were informed that a bonus prize would be allocated at the end of the experiment, and that the bonus prize would be given to the one of the two who performed best on the estimations tasks (in reality, additional movie-tickets were randomly allocated to some of the participants, a procedure to which none of the participants objected).

Then the experimental procedure was explained. Participants were to perform three rounds of estimations (cf. De Gilder & Wilke, 1990; Vermunt, Wit, Van den Bos, & Lind, 1996). Rectangles of white and black squares were to be shown on the screen for 5 s. The task was to estimate the number of black squares in the rectangle. Participants were informed that the total number of squares was always 180 and that the number of black squares was always in between 70 and 110. If anyone indicated a number of black squares below 70 or above 110, they were informed that their answer was not possible and were subsequently given a new opportunity to estimate the number of squares. After a total of six trials on the estimations task, the three work-rounds of estimations begun. Each work-round consisted of 10 estimations. After each round participants received bogus feedback on their average deviation from the actual number of black squares. To enable them to evaluate their performance, they also received bogus feedback on the average deviation in previous studies using these tasks. All participants learned that their average deviation from the actual number of black squares was 14 squares in the first round, 10 squares in the second round and 5 squares in the third round. Additionally, after each round all participants were informed that the average deviation on this round of estimations in previous studies was 10 squares.

After the third round of estimations had been completed, participants were informed that before the study was finished they were to fill out two questionnaires as a pre-test for a future study. Then the salience of instrumental versus relational concerns was manipulated. To recapitulate, our conceptualization of being instrumentally concerned entails that a goal to evaluate the quality of subsequent outcomes is activated. To activate such a goal, and a corresponding mindset in which participants processed information with the intention to evaluate subsequent outcomes, participants in the instrumental condition were asked to elaborate on and to write down their answers to the following questions: (1) "Please briefly describe the emotions that arise in you in a situation where you do not know whether you will or will not get something that is of great importance to you (for example an apartment or a job)," and (2) "Please write down as specifically as you can what you think happens to you physically when you do not know whether you will or will not get something that is of great importance to you (for example an apartment or a job)." Our conceptualization of being relationally concerned entailed that a goal to evaluate one's relationship to the authority and the group is activated. To activate such a goal, and a corresponding mindset in which participants processed information with the intention to evaluate their relationship to the authority, participants in the relational condition were asked to elaborate on and to write down their answers to the following questions: (1) "Please briefly describe the emotions that arise in you in a situation where you do not know whether you are respected and appreciated in a group you belong to," and (2) "Please write down as specifically as you can what you think happens to you physically when you do not know whether you are respected and appreciated in a group you belong to."

Then the second questionnaire was presented on the computer screen and participants filled out the Positive and Negative Affect Scales (PANAS; Watson, Clark, & Tellegen, 1988). These measures were included as a filler task and to control for any affective reactions to the salience manipulation (cf. Van den Bos, 2001; Van den Bos & Miedema, 2000).

After that, participants received a message that the main study would continue and that the winner of the bonus prize was now to be decided. Subsequently, procedure was manipulated. Participants in the favorable condition received a message on the screen informing them that the experimenter would only consider the results from the third round when deciding who would get the bonus prize (i.e. the round in which the participant performed better than average). Participants in the unfavorable condition received a message that the experimenter would only consider the results from the first round when deciding who would get the bonus prize (i.e., the round in which the participant performed worse than average, cf. Ståhl et al., 2004, 2006). Finally, participants were asked to answer some questions while the experimenter allegedly compared

the results between the participants and decided who would get the bonus prize. All participants then answered questions constituting the dependent variables and manipulation checks. All items were measured on a 7-point Likert Scale (1 = *not at all*; 7 = *very much*). To measure evaluations of the authority, three questions were asked: "Do you respect the experimenter?", "Do you think that the experimenter is neutral?" and "Do you think that the experimenter sees you as a full-worthy member of the group?". These three items were averaged to create a reliable scale ($\alpha = .70$).

To check comprehension of the procedure manipulation two questions were asked: "To what extent do you agree with the statement that the experimenter only considered the results of the first part of the test when deciding who should get the bonus?", and "To what extent do you agree with the statement that the experimenter considered only the third part of the test when deciding who should get the bonus?". The second item was reversed and a reliable scale was computed ($\alpha = .91$). To check the perceived favorability of the procedure we asked: "To what extent do you think the procedure used by the experimenter will increase your chances to get the bonus prize?". To check the salience manipulation four questions were asked: "To what extent have you thought about how it feels not to know whether you will get something that you really want?", "To what extent have you thought about what physically happens to you when you do not know whether you will get something that you really want?", "To what extent have you thought about how it feels not to know whether you are respected in a group that is important to you?", and "To what extent have you thought about what happens to you physically when you do not know whether you are respected in a group that is important to you?". The first two items were averaged to create a reliable index of instrumental salience ($\alpha = .86$). The last two items were averaged to create a reliable index of relational salience ($\alpha = .85$). After that, all participants were fully debriefed, thanked, and received a movie-ticket for their time in the laboratory.

Results

Unless stated otherwise, all measures were analyzed by means of a 2 (salience: relational/instrumental) × 2 (procedure: favorable/unfavorable) Analysis of Variance (ANOVA).

Parts considered

Only a main effect of procedure was found, $F(1,93) = 170.75$, $p < .001$. As expected, participants in the unfavorable condition agreed more with the statement that only the first part of the test (where the participant had performed below average), and not the third part (where the participant had performed above average) was considered ($M = 5.96$, $SD = 1.74$) than participants in the favorable condition ($M = 1.85$, $SD = 1.37$).

Favorability

Only a significant main effect of procedure was obtained, $F(1,93) = 10.08$, $p < .01$. As expected, participants in the favorable condition to a larger extent thought that the procedure increased their chances to get the bonus prize ($M = 4.43$, $SD = 2.0$) than participants in the unfavorable condition ($M = 3.21$, $SD = 1.71$).

To sum up, participants understood what parts of the test would be considered when deciding who would get the bonus. Furthermore, participants to a larger extent perceived that their chances to get the bonus increased when only the third part of the test was going to be considered rather than only the first part of the test. We thus conclude that the manipulation of procedure was perceived as intended.

Instrumental concerns

Only a main effect of salience was found, $F(1,93) = 47.23$, $p < .001$. As expected, participants in the instrumental condition reported thinking about the instrumental issue to a larger extent ($M = 4.47$, $SD = 1.99$) than participants in the relational condition ($M = 2.05$, $SD = 1.36$).

Relational concerns

Analysis yielded only a main effect of salience, $F(1,93) = 25.82$, $p < .001$. Participants in the relational condition reported thinking about the relational issue to a larger extent ($M = 5.32$, $SD = 1.51$) than participants in the instrumental condition ($M = 3.57$, $SD = 1.82$). This indicates that also our salience manipulation was perceived as intended.

Affect

The affect items were analysed to control for any effects of our manipulations on Positive and Negative Affect. A reliable Positive Affect Scale (PA Scale) was computed ($\alpha = .80$), and analysis on this scale yielded no significant effects. Because the items measuring Negative Affect were somewhat unreliable ($\alpha = .58$), we examined the Negative Affect items separately. These analyses yielded only one significant effect. Specifically, a two-way interaction was found on the item measuring irritation, $F(1,93) = 5.15$, $p < .05$. A comparison of the means indicated that participants in the instrumental condition reported being somewhat more irritated in the favorable condition ($M = 1.64$, $SD = 0.91$) than in the unfavorable condition ($M = 1.24$, $SD = 0.52$), whereas participants in the relational condition reported being somewhat less irritated in the favorable condition ($M = 1.50$, $SD = 0.83$) than in the unfavorable condition ($M = 1.83$, $SD = 0.83$). To ensure that any effects obtained on evaluations of the authority were not attributable to differences in irritation, this item was included as a covariate in all subsequent analyses.

Evaluations of the authority

A 2 × 2 analysis of covariance (ANCOVA) with irritation as a covariate only yielded a significant salience by

procedure interaction, $F(1,92) = 4.33$, $p < .05$. All adjusted means are presented in Table 1. To further test our hypothesis we investigated the simple procedure effect within each salience condition, while controlling for differences in irritation. As predicted, the simple procedure effect was significant within the instrumental condition, $F(1,92) = 5.06$, $p < .05$, $\eta^2 = .05$; but not within the relational condition, $F < 1$. An inspection of the means confirmed that participants in the instrumental condition reacted more positively to the favorable procedure than to the unfavorable procedure, a pattern that was non-significantly reversed in the relational condition.[1]

Table 1
Means (adjusted for irritation) and standard deviations of authority evaluations as a function of procedure and salience (Experiment 1)

Procedure		Salience	
		Relational	Instrumental
Favorable	*M*	5.67	6.03
	SD	1.04	0.87
Unfavorable	*M*	5.92	5.31
	SD	1.21	1.33

Note. Higher values indicate more positive authority evaluations.

Discussion

The present study provided a direct test of the assumed causal links between instrumental and relational concerns on the one hand and reactions to procedures on the other. The findings confirm that people do react differently to procedures when instrumental (versus relational) concerns are salient. Specifically, evaluations of the authority were determined by how the procedures used affected anticipated outcomes when instrumental concerns were salient, but not when relational concerns were salient. These patterns extend previous studies demonstrating that people react more positively to favorable procedures and outcomes than to unfavorable procedures and outcomes in situations where instrumental concerns have been *assumed* to be high (e.g., Ståhl et al., 2004, Experiment 2, cf. Duck & Fielding, 2003; Ståhl et al., 2006).

However, before strong conclusions are drawn based on these findings, it is important to replicate them. Furthermore, there are also some limitations to the present study that need to be addressed. First and foremost, salience of instrumental and relational concerns was manipulated rather explicitly, as participants were asked directly to think about and write down their thoughts and feelings about being relationally versus instrumentally uncertain. The explicit nature of this manipulation raises concerns regarding demand effects (Bargh & Chartrand, 2000). Therefore, it would increase our confidence in the validity of our conclusions if a more subtle manipulation of instrumental and relational processing goals would produce similar effects. Second, the procedure manipulation in the present study did not include a fair (i.e. accurate; Leventhal, 1980) condition. As a result it was not possible to test the hypothesis that people with salient relational concerns should discriminate between fair procedures and unfair procedures (favorable or unfavorable) to a larger extent than people with salient instrumental concerns. We addressed these issues in our second study.

Experiment 2

In the second study, we wanted to replicate the findings from our first study and confirm that people react more strongly to the favorability of treatment when instrumentally concerned than when relationally concerned. Furthermore, we also wanted to test whether the difference in reactions to fair treatment as opposed to unfair treatment would be larger when relationally concerned than when instrumentally concerned. To manipulate instrumental and relational processing goals in a more subtle way, we used a conceptual priming procedure (Bargh & Chartrand, 2000). Following the primes, participants read a short scenario containing the procedure manipulation. Our main dependent variables once again focused on participants' evaluations of the authority.

Method

Participants and design

Students ($N = 90$) at a Swedish Gymnasium (male = 31; female = 59; $M_{age} = 18$ years) were randomly assigned to conditions in a 2 (prime: relational/instrumental) × 3 (procedure: fair/favorable/unfavorable) factorial design.

Procedure

All the materials were passed out during classes in the form of a questionnaire ostensibly containing several short studies. Specifically, participants were informed that they were first to participate in a grammatical test followed by a short scenario-study. First, participants took part in the ostensible grammatical test. In actuality, the test constituted the prime manipulation. The primes were induced by means of a scrambled sentence task (Bargh & Chartrand, 2000), a procedure that has previously been used successfully to activate different processing goals (e.g., Chartrand & Bargh, 1996; Stapel & Koomen, 2001, 2005). Participants were presented with a total of twelve word strings, where each word string contained five words. Participants were informed that the task was to create a sentence out of each word string using four of the five words. In the instrumental prime condition six of the word

[1] When we exclude the covariate (irritation) from the analyses, the pattern is very similar. The simple main effect of procedure is significant in the instrumental condition, $F(1,93) = 4.22$, $p < .05$, $\eta^2 = .04$; and non-existent in the relational condition, $F < 1$, as predicted, even though the overall interaction effect is only marginally significant, $F(1,93) = 3.40$, $p = .07$. No other effects are found.

strings contained a word theoretically associated with instrumental concerns (i.e., control, gains, result, attain, bonus, win) and six word strings contained only neutral words. To illustrate, one of the word strings containing a word associated with instrumental concerns was: "much Torkel money other *gains*" (unscrambled: Torkel *gains* much money). In the relational prime condition, six of the word strings contained words theoretically associated with relational concerns (i.e., respects, trust, status, relationship, group, community) and six word strings contained only neutral words (identical to the instrumental condition). One of the word strings containing a word associated with relational concerns was: "Olle Kalle a lot sunny *respects*" (unscrambled: Olle *respects* Kalle a lot).[2] An example of a word string containing only neutral words was: "painting Anna a paints Erik" (unscrambled: Anna paints a painting).

After the scrambled sentence task, participants turned the page to find the PANAS (Watson et al., 1988). The affect measures were once again included as a filler task and to control for any affective reactions to the prime manipulation. After completing this measure, participants turned the page to find a short scenario in which the procedure manipulation was included. Participants were asked to imagine the following situation:

"You have recently taken a large test on an important subject which will affect your grade. The test consisted of three parts on which these were your results:

1st part: You were way below average,

2nd part: You were about average,

3rd part: You were way above average."

This was followed by the procedure manipulation (manipulated information in italics). Participants in the fair condition read:

"As the teacher handed out the corrected tests, it was announced by the teacher that *all parts* of the test would be considered when grades were assigned."

Participants in the favorable condition read:

"As the teacher handed out the corrected tests, it was announced by the teacher that *only the third part* of the test would be considered when grades were assigned."

Participants in the unfavorable condition read:

"As the teacher handed out the corrected tests, it was announced by the teacher that *only the first part* of the test would be considered when grades were assigned."

After that all participants turned the page to find the questions constituting the dependent variables and manipulation checks. All items were measured on a 7-point Likert Scale ($1 = \textit{not at all}$; $7 = \textit{very much}$). To measure evaluations of the authority five questions were asked: "Do you respect the teacher?", "Do you trust the teacher?", "Do you think that the teacher respects you?", "How honestly were you treated by the teacher?", and "Do you think that the teacher sees you as a full-worthy member of the group?". These items were averaged to create a reliable scale ($\alpha = .88$). To check the manipulation of procedure two questions were asked: "To what extent do you think the way the teacher dealt with the results of the test will increase your chances to get a good grade?", and "To what extent do you think the way the teacher dealt with the results of the test was accurate?".

After answering these questions, all participants were fully debriefed and thanked for their participation.

Results

All manipulation checks and dependent variables were analyzed by means of 2 (prime: instrumental/relational) × 3 (procedure: fair/favorable/unfavorable) ANOVAs. For hypothesis testing, ANOVAs were followed up by planned contrasts (Rosenthal & Rosnow, 1985).

Favorability

Only a main effect of procedure was found, $F(2, 84) = 20.75$, $p < .001$. As expected, participants in the favorable condition were more likely to think that the way the teacher dealt with the test results would increase their chances to get a good grade ($M = 5.03$, $SD = 1.84$) than participants in the fair condition ($M = 3.37$, $SD = 1.45$) and in the unfavorable condition ($M = 2.38$, $SD = 1.43$). A Tukey test indicated that responses in the favorable condition differed significantly from responses in both other procedure conditions ($p < .05$).

Accuracy

Only the expected main effect of procedure was once again found, $F(2, 84) = 19.35$, $p < .001$. As expected, participants in the fair condition perceived the procedure used by the teacher as more accurate ($M = 4.40$, $SD = 1.43$) than participants in the favorable condition ($M = 2.84$, $SD = 1.51$) and in the unfavorable condition ($M = 2.17$, $SD = 1.26$). A Tukey test showed that the fair condition differed significantly from both the favorable and unfavorable condition ($p < .05$), and that the difference between the favorable and unfavorable condition was not significant ($p > .05$). We therefore conclude that the manipulation of procedure was perceived as intended.

Affect

No significant effects were found on the Positive Affect Scale ($\alpha = .77$) or on the Negative Affect Scale ($\alpha = .81$). Thus any further effects of the prime cannot be attributed to differences in Positive or Negative Affect.

[2] Six words were required to accurately translate the original Swedish word string into English. In the Swedish stimulus materials however, the word string contained only five words (Olle Kalle mycket soligt *respekterar*), and the unscrambled sentence only contained four words (Olle *respekterar* Kalle mycket). Also note that words associated with instrumental and relational concerns were italicized here, but not in the original stimulus materials.

Evaluations of the authority

A main effect of procedure was found, $F(2, 84) = 8.93$, $p < .001$. More importantly, however, this main effect was qualified by the predicted prime by procedure interaction, $F(2, 84) = 4.80$, $p < .025$. All means are presented in Table 2. To test the first hypothesis more directly we investigated differences in reactions to the favorable versus unfavorable procedure within the instrumental and relational conditions separately. As predicted, participants reacted more positively to the favorable procedure than to the unfavorable procedure in the instrumental condition, $t(84) = 3.50$, $p < .001$, $r = .36$; but not in the relational condition, $t(84) = -0.37$, ns.

To test the second hypothesis, following up on the significant prime by procedure interaction, we investigated differences in reactions to the fair procedure condition versus the two unfair procedure conditions (i.e. the favorable and unfavorable conditions) within the relational, and instrumental conditions separately. As predicted, participants reacted more positively to the fair procedure ($M = 4.37$, $SD = 1.29$) than to the unfair procedures ($M = 3.41$, $SD = 1.54$) in the relational condition, $t(84) = 2.40$, $p < .01$, $r = .25$. Notably, although participants also reacted more positively to the fair procedure ($M = 4.71$, $SD = 1.20$) than to the unfair procedures ($M = 3.49$, $SD = 1.23$) in the instrumental condition, $t(84) = 3.01$, $p < .005$, $r = .31$, this effect was driven solely by very negative reactions to the unfavorable procedure in the instrumental condition. Thus, contrasting the fair procedure condition against the unfavorable procedure condition yielded a significant contrast in the relational condition, $t(84) = 1.89$, $p < .05$, $r = .20$; and in the instrumental condition, $t(84) = 4.36$, $p < .0005$, $r = .43$. However, when contrasting the fair procedure condition against the favorable procedure condition, the contrast was significant only in the relational condition, $t(84) = 2.27$, $p < .025$, $r = .24$; but not in the instrumental condition, $t(84) = 0.86$, ns. Thus, in support of our second hypothesis, participants in the relational condition consistently reacted more positively to fair treatment than to unfair treatment. By contrast, participants in the instrumental condition evaluated unfavorable treatment more negatively than fair or favorable treatment. In other words, when instrumental concerns were activated, evaluations of the authority were guided by the favorability of procedures rather than by the fairness of procedures.

Table 2
Means and standard deviations of authority evaluations as a function of procedure and prime (Experiment 2)

Procedure		Prime	
		Relational	Instrumental
Fair	*M*	4.37	4.71
	SD	1.29	1.20
Favorable	*M*	3.23	4.31
	SD	1.34	0.99
Unfavorable	*M*	3.61	2.68
	SD	1.76	0.87

Note. Higher values indicate more positive authority evaluations.

Discussion

An important aim of the second study was to replicate the findings from our first study using a more subtle manipulation of relational versus instrumental concerns. Importantly, the main findings were replicated. Once again, people reacted more positively to a favorable procedure than to an unfavorable procedure when instrumental concerns were activated, but not when relational concerns were activated. The present study also provided support for our second hypothesis by demonstrating that people consistently react more positively to fair procedures than to unfair procedures when relational concerns are activated, irrespective of whether or not the unfair procedure is favorable or unfavorable. By contrast, when instrumental concerns were activated, people reacted more negatively to unfavorably unfair procedures than to fair procedures, but did not differentiate between fair and favorably unfair procedures in their responses. This suggests that relational concerns are indeed important antecedents of procedural fairness effects (Tyler & Lind, 1992; cf. Van Prooijen et al., 2002), while instrumental concerns determine how people respond to the favorability of procedures.

Experiment 3

In the third study, we wanted to confirm that our findings from the second study were not restricted to the scenario methodology, but in fact generalize to situations where participants are immersed in the experimental situation, and actually experience the different procedures they are exposed to. A second aim was to see whether our findings generalize to a different dependent variable. Both Studies 1 and 2 focused on evaluations of the authority. Although effects on authority evaluations are central to the research question we address, we are ultimately trying to demonstrate more general motivational processes. It is therefore important to examine whether the same psychological mechanisms can be demonstrated on other measures, and particularly on measures that are more closely linked to actual behavioral responses—such as behavioral intentions (e.g., Ajzen, 1991). Moreover, because evaluations of authorities are more closely related to relational concerns than to instrumental concerns (Tyler & Lind, 1992), it also seems critical to examine responses that are generally more closely linked to instrumental concerns, such as intentions to accept or reject particular decisions (Ståhl et al., 2004; Ståhl, Vermunt, & Ellemers, submitted for publication; Tyler, 1997). In the third and final study we therefore tried to find support for both our hypotheses on people's intentions to protest against the authority's decision (e.g., Vermunt et al., 1996).

Method

Participants and design

Students ($N = 108$) at the University of Skövde (male = 42; female = 66; $M_{age} = 23$ years) were randomly assigned to conditions in a 2 (prime: relational/instrumental) × 3 (procedure: fair/favorable/unfavorable) factorial design. All participants received a movie-ticket for their time in the laboratory.

Procedure

Except for the manipulation of instrumental and relational concerns, the experimental procedure was very similar to the first experiment. Participants were seated in separate cubicles and all information was presented on a computer screen. Participants were informed that the study focused on how people make rapid estimations and what influences the quality of such estimations. As in Study 1, participants were informed that they participated together with another person. It was also communicated that the one of the two who performed best on the estimations task would get a chance to obtain an additional movie-ticket (in reality, additional movie-tickets were randomly allocated to some of the participants, a procedure to which none of the participants objected). Participants then worked in three rounds with the same estimations as in Study 1 and after each round they received identical feedback as in Study 1 about their performance in relation to the average performance in earlier studies using this task.

After the three work rounds, it was announced that before the study continued they were asked to fill out two tests that were allegedly under development. First, participants were asked to fill out a grammatical test on a piece of paper that lay upside down next to the computer. In actuality, the piece of paper contained the priming manipulation, an identical scrambled sentence task as the one used in Study 2. Following the scrambled sentence task, participants were asked to fill out a second test presented on the computer screen (i.e., the PANAS). After filling out the affect measures, participants were informed that the main study would continue. As in Study 1, a message from the experimenter then appeared on the screen including the procedure manipulation. Participants in the fair condition were informed that the experimenter would consider the results from all three rounds of estimations when deciding who would get a chance for an additional movie-ticket. Participants in the favorable (versus unfavorable) condition were informed that the experimenter would only consider the third (versus first) round of estimations when deciding who would get a chance for an additional movie-ticket.

It was then announced that the experimenter would compare the results of the two participants. In the mean time, participants were asked to answer some questions. Then participants filled out the questions constituting the dependent variables and manipulation checks. Main dependent variables were participants' intentions to protest.

All items were measured on a 7-point Likert Scale (1 = *not at all*; 7 = *very much*). To measure intentions to protest two questions were asked: "When there is an opportunity to criticize the experimenter, to what extent will you do so?", and "When there is an opportunity to protest against the experimenter, to what extent will you do so?". These items were averaged to create a reliable measure of protest intentions ($\alpha = .82$). To check comprehension of the procedure manipulation three questions were asked: "To what extent do you agree with the statement that the experimenter will consider all three rounds of estimations when deciding who will get a chance to get an additional movie-ticket?", "To what extent do you agree with the statement that the experimenter will consider only the first round of estimations when deciding who will get a chance to get an additional movie-ticket?", and "To what extent do you agree with the statement that the experimenter will consider only the third round of estimations when deciding who will get a chance to get an additional movie-ticket?".

After completing these questions, participants went through a funnelled debriefing to check for awareness of the connection between the ostensibly unrelated studies and the true nature of the priming manipulation (Bargh & Chartrand, 2000). After that, all participants were fully debriefed, thanked and received a movie-ticket for their time in the laboratory.

Results

Unless stated otherwise, all measures were analyzed by means of 2 (prime: relational/instrumental) × 3 (procedure: fair/favorable/unfavorable) ANOVAs. For hypothesis testing, ANOVAs were followed up by planned contrasts.

Awareness check

None of the participants reported any awareness of the true nature and purpose of the scrambled sentence task during the funnelled debriefing. Typically, participants thought of the scrambled sentence task as a very simple grammatical test, unrelated to the main study.

Rounds considered

As expected, participants in the fair condition agreed to a larger extent that all three rounds of estimations would be considered ($M = 5.56$, $SD = 2.13$) than participants in the unfavorable ($M = 3.14$, $SD = 2.50$) and favorable condition ($M = 2.64$, $SD = 2.33$), $F(2, 102) = 16.33$, $p < .001$. A Tukey test showed that the fair condition differed significantly from both the favorable and unfavorable conditions ($p < .05$). Participants in the favorable condition agreed to a larger extent with the statement that only the third round of estimations would be considered ($M = 5.81$, $SD = 2.25$) than participants in the fair ($M = 2.56$, $SD = 2.22$) and unfavorable condition ($M = 2.14$, $SD = 1.89$),

$F(2,102) = 31.39$, $p < .001$. A Tukey test showed that the favorable condition differed significantly from both the fair and unfavorable condition ($p < .05$). Finally, participants in the unfavorable condition agreed to a larger extent with the statement that only the first round of estimations would be considered ($M = 5.56$, $SD = 2.14$) than participants in the fair ($M = 2.69$, $SD = 2.27$) and favorable condition ($M = 1.36$, $SD = 1.15$), $F(2,102) = 43.83$, $p < .001$. A Tukey test showed that all mean differences were significant ($p < .05$). No main effects of the prime or interactions were significant. Thus, we conclude that the procedure manipulation was perceived as intended.

Affect

No significant effects were found on the Positive Affect Scale ($\alpha = .84$) or the Negative Affect Scale ($\alpha = .80$). Thus, any further effects of the prime cannot be attributed to differences in Positive or Negative Affect.

Intentions to protest

Only a significant prime by procedure interaction was found on participants' intentions to protest against the authority, $F(2,102) = 3.75$, $p < .05$. All means are presented in Table 3. To test the first hypothesis more directly we followed up the significant interaction by investigating differences in reactions to the favorable versus unfavorable procedure condition within each of the two prime conditions. In line with our first hypothesis, participants intentions to protest were significantly stronger following unfavorable treatment than following favorable treatment when instrumental concerns had been activated, $t(102) = -1.77$, $p < .05$, $r = .17$; but not when relational concerns had been activated, $t(102) = -.65$, ns.

To test the second hypothesis, we followed up the significant two-way interaction between prime and procedure by investigating differences in reactions to the fair versus unfair procedures within each prime condition separately. As expected, this analysis yielded a significant contrast within the relational condition, $t(102) = -1.74$, $p < .05$, $r = .17$. When relational concerns were activated, protest intentions were stronger following unfair (favorable and unfavorable) procedures ($M = 2.99$, $SD = 1.50$) than following the fair procedure ($M = 2.28$, $SD = 1.06$). By contrast, when instrumental concerns were activated, people had stronger protest intentions following the fair procedure ($M = 3.08$, $SD = 1.66$) than following unfair (favorable and unfavorable) procedures ($M = 2.28$, $SD = 1.39$), $t(102) = 1.97$, $p < .05$, $r = .19$. As can be seen in Table 3, the latter effect was attributable to the fact that people reported very low protest intentions following the favorable procedure ($M = 1.86$) when instrumental concerns were activated, whereas protest intentions following fair versus unfavorable treatment did not differ, $t(102) = 0.83$, ns. Thus, when instrumental concerns were activated, reactions were once again directed by the favorability of procedures.

Table 3
Means and standard deviations of intentions to protest as a function of procedure and prime (Experiment 3)

Procedure		Prime	
		Relational	Instrumental
Fair	*M*	2.28	3.08
	SD	1.06	1.66
Favorable	*M*	2.83	1.86
	SD	1.46	1.25
Unfavorable	*M*	3.14	2.69
	SD	1.56	1.43

Note. Higher values indicate stronger intentions to protest.

Discussion

This study confirmed that the main finding established in the first two studies, namely that people react more strongly to the favorability of procedures when instrumental (versus relational) concerns are activated, also can be observed in people's behavioral intentions. As expected, people reported stronger intentions to protest following unfavorable procedures than following favorable procedures when instrumental concerns were activated. By contrast, protest intentions were unaffected by the favorability of procedures when relational concerns were activated.

We also replicated the finding that fairness of procedures has different effects when relational (versus instrumental) concerns are activated. Specifically, when relational concerns were activated, unfair procedures yielded stronger protest intentions than fair procedures. By contrast, fair procedures yielded significantly stronger protest intentions than unfair procedures when instrumental concerns were activated. This latter effect was due to the fact that protest intentions were very weak following favorably unfair procedures when instrumental concerns were activated. Notably, this pattern is somewhat different from what was obtained in the previous study. In Study 2, people primed with instrumental concerns reacted more positively to the favorable and fair procedures than to unfavorable procedures. In Study 3, however, responses of people primed with instrumental concerns primarily discriminated between favorable procedures on the one hand, and fair or unfavorable procedures on the other. In a sense then, responses in the instrumental condition of Study 3 were particularly influenced by whether the procedure was favorable or not. We suspect that this difference is due to the different dependent variables used in these studies. Several studies have reported that intentions to accept or to protest against a particular decision are more closely related to instrumental concerns than are more general evaluations of authorities (Ståhl et al., 2004, submitted for publication; Tyler, 1997). Viewed in this light, it is not too surprising that protest intentions were particularly influenced by the favorability of procedures when instrumental concerns had been activated. Of course, future

research is needed to confirm the validity of this interpretation.

Most importantly, however, the present study demonstrated that actual protest intentions become more strongly influenced by the favorability of procedures when instrumental (versus relational) concerns are activated, whereas the fairness of procedures have a positive effect on protest intentions when relational (but not instrumental) concerns are activated. Thus, support was found for both our hypotheses. Finally, results of the funnelled debriefing clearly indicated that participants were unaware of the true nature of the priming task, and that they did not see any connections between the priming task and the main study. Therefore, it seems unlikely that demand characteristics contributed to the results obtained.

General discussion

The studies reported here examined the causal role of two different orientations that have been assumed to contribute to the way people react to decision-making procedures. In three studies, one scenario study (Study 2) and two more self-involving studies (Studies 1 and 3), we consistently showed that people react more strongly to the *favorability* of procedures when instrumental (versus relational) concerns are salient. That is, particularly when instrumental processing goals are activated, people evaluate and respond to procedures based on how these procedures affect anticipated outcomes. This pattern was found on evaluations of the authority (Studies 1 and 2) as well as on measures more closely related to behavioral responses (i.e., intentions to protest, Study 3). Furthermore, this pattern was found when instrumental and relational concerns were manipulated by means of a relatively explicit manipulation (Study 1), as well as when more unobtrusive conceptual priming procedures were used (Studies 2 and 3). Thus, strong support was obtained for our first hypothesis.

These findings complement results from previous studies where factors *assumed* to (indirectly) activate different levels of instrumental and relational concerns have been manipulated, such as studies manipulating the group membership of the authority (e.g., Duck & Fielding, 2003; Ståhl et al., 2004). In these studies, reactions to decisions are typically more strongly affected by the favorability of procedures and outcomes when the authority is from an outgroup (versus ingroup). In line with the relational model, this has been explained by arguing that people react more strongly to the favorability of outcomes in encounters with an outgroup authority because the relationship to the authority is less relevant for one's social identity (Tyler & Lind, 1992). The present research offers the first direct evidence for such a process. Hence, the studies reported here provide further support for the explanation proposed by the relational model (Tyler & Lind, 1992), that variations in relational and instrumental concerns may account for the different responses to favorable and unfavorable procedures observed in encounters with ingroup versus outgroup authorities.

Two of the studies reported here (Studies 2 and 3) consistently show that the salience of relational (versus instrumental) concerns also affects the impact of *fairness* of treatment. Specifically, these studies suggest that people react more strongly to the fairness of procedures when relational (versus instrumental) concerns are salient. This pattern was found on evaluations of the authority (Study 2) as well as on intentions to protest (Study 3). Thus, support was found also for our second hypothesis. These findings complement previous results from studies in which stronger effects of procedural fairness in encounters with ingroup authorities (versus outgroup authorities, e.g., Smith et al., 1998; Ståhl et al., 2004), and among high ingroup identifiers (versus low ingroup identifiers, e.g., Huo et al., 1996; Ståhl et al., submitted for publication) have been attributed to differences in the level of relational versus instrumental concerns. In these previous studies the underlying psychological processes were not explicitly examined. The present research offer evidence for the validity of the reasoning proposed in the relational model; that people react more strongly to the fairness of treatment when they are concerned about their relationship to the authority (e.g., because the authority is from an ingroup) than when they are concerned about instrumental issues (Tyler & Lind, 1992). The studies reported here also extend existing insights into these processes because previous work in this area mainly focused on opportunities to voice, whereas in the present study we addressed other elements of fair versus unfair procedures (i.e., accuracy, Leventhal, 1980; cf. Ståhl et al., 2004; Vermunt et al., 1996).

A fruitful approach for future research would be to examine whether variables assumed to indirectly activate different levels of instrumental versus relational concerns indeed do so. For example, researchers may want to examine whether manipulating an authority's group membership indeed affects to what extent instrumental versus relational concerns are cognitively accessible. A similar approach could be used to investigate whether relational concerns are more cognitively accessible among people who identify strongly with the group the authority represents than among people who do not identify strongly with the group. This approach also makes it possible to examine whether activation of instrumental versus relational concerns *mediates* effects of authority's group membership and ingroup identification on reactions to variations in treatment by an authority.

Although, we think that the studies presented here provide empirical evidence for the causal role of relational and instrumental concerns in reactions to authority treatment, our findings also raise some important questions. A first question concerns the generality of the effects reported here. In the present research, fair procedures produced moderate outcome expectations. Unfair procedures, on the other hand, were either accompanied by favorable or unfavorable outcome expectations. Based on the present

data, we can therefore conclude that activated instrumental (versus relational) concerns produce stronger reactions to the favorability of procedures *when procedures are unfair*. However, because outcome expectations were constant when the procedure was fair, effects of outcome expectations could not be examined in this condition. Indeed, this is an inherent limitation of the procedure manipulation used in the present research (cf. Ståhl et al., 2004) and we encourage other researchers to examine whether the effects obtained here generalize to situations where procedures are more fair. Preferably, such studies would use a design in which procedural fairness and outcome expectations can be orthogonally manipulated enabling a replication of the present findings while testing whether our findings generalize to more fair situations. For the time being, we conclude that instrumental (versus relational) concerns can produce stronger reactions to the favorability of procedures, at least when procedures are unfair.

Second, relational concerns, as defined by Tyler and Lind (1992) and as operationalized in the present research, refer to a range of considerations (i.e., concerns about respect, status, neutrality, trust), of which some (e.g., status) have also been defined somewhat differently by other researchers (cf. Lind, 2001; Van Prooijen et al., 2002). Similarly, there are a variety of instrumental concerns (e.g., gain, control, favorability) that may contribute to people's responses to decisions. In the present research, we tried to ensure that the operationalization of instrumental and relational concerns reflected the multi-faceted nature of these constructs. At the same time, one may wonder whether certain components of each construct contributed more than others to the effects obtained. A fruitful direction for future research would therefore be to examine what aspects of the relevant constructs that contribute most to the processes under investigation (cf. Van Prooijen et al., 2004; Van Prooijen, Van den Bos, & Wilke, 2005).

In the present research, instrumental and relational concerns were defined as different processing goals. Instrumental concerns were defined as a processing goal aimed at evaluation of the quality of subsequent outcomes. Relational concerns, on the other hand, were defined as a processing goal aimed at evaluation of the quality of the relationship to the authority and the group. These definitions are in line with previous conceptualizations of relational and instrumental concerns as different *motives* (e.g., Tyler & Lind, 1992; Tyler & Smith, 1998). Furthermore, the manipulations we used to activate instrumental and relational processing goals are in line with how processing goals and mindsets are generally activated in research on social cognition (e.g., Bargh et al., 2001; Chartrand & Bargh, 1996; Stapel & Koomen, 2001). Therefore, we think our conceptualizations as well as our operationalizations of instrumental and relational concerns were appropriate.

That said, however, there are alternative ways to interpret our findings. Research on social cognition has demonstrated that similar salience and priming manipulations as the ones used in the present research can activate various different knowledge structures, such as traits, stereotypes, and processing goals (Bargh, 2006). Based on the present data alone one should therefore be careful to draw strong conclusions as to whether the effects were due to the operation of different goals or other mental representations. In principle the effects could be perceptual in nature, in case the primes activated other knowledge structures, such as trait representations (e.g., respectful), which in turn affected how the authority's behavior was perceived (cf. Bargh et al., 2001). Such perceptual priming effects are thought to emerge because activated knowledge structures are used as interpretative frames (or as comparison standards), resulting in assimilation (or contrast) effects in perception (e.g., Srull & Wyer, 1979; Stapel & Koomen, 2001). From a social-cognitive perspective it thus seems plausible that our primes activated other types of knowledge structures than processing goals, which in turn influenced interpretations of the authority's behavior. While we acknowledge the plausibility of this alternative explanation, aside from theoretical support from procedural justice models, we think there is also some empirical support in favor of our goal activation interpretation, and against a perceptual explanation. Specifically, if the effects obtained here were perceptual in nature, effects of the primes should be particularly likely to emerge on perceptions of the procedures. In the present studies, however, perceptions of the procedures did not vary as a function of the primes. As is evident from the manipulation checks (Studies 1 and 2), procedures were perceived as equally favorable, and as equally accurate irrespective of priming condition. Meanwhile, despite that perceptions of the procedures did not vary between priming conditions, the primes interacted with the procedures used by the authority to affect evaluations of the authority as well as intentions to protest against the authority. In our view, this pattern suggests the operation of different processing goals, as the primes did not influence perceptions of particular procedures, but the perceived *value* of fair, favorable and unfavorable procedures.[3] We encourage other researchers to further test the validity of our goal activation interpretation as opposed to "cold" social-cognitive explanations.

A possibility to further examine this issue in the future would be to explore whether the manipulations used here result in effects that are characteristic of goal pursuit. For example, activated goals can remain active for a long time (e.g., until they are fulfilled, cf. Förster, Liberman, & Higgins, 2005), whereas perceptual priming effects typically last only for a short period of time (e.g., Higgins, Bargh, & Lombardi, 1985). Thus, to the extent that our primes exerted their influence by activating relational versus instrumental processing goals, it should be possible to observe findings such as the ones reported here after

[3] Because primes presumably activate several different cognitive structures simultaneously (e.g., traits, goals), we expect that our priming manipulation *could* produce differences in perception of procedures.

relatively longer periods of time. By contrast, to the extent that the effects of the primes were due to the activation of other kinds of knowledge structures, effects of the primes should only be visible for a short period of time (cf. Bargh et al., 2001).

To conclude, we return to the main contribution of the present research. In a set of three studies using different methodologies we have demonstrated that people react less strongly to the favorability of procedures and more strongly to the fairness of procedures when relational (versus instrumental) concerns are activated, providing direct evidence for central predictions in social justice theory. Taken together, the results of these three studies provide support for the specific causal role of relational and instrumental concerns in reactions to treatment by authorities, and offer an important starting point for further theory development and research in this area.

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