Chapter 5

The Role of Relational Versus Instrumental Concerns

An impressive body of findings from procedural justice research demonstrates that fair decision-making procedures have positive effects on people’s cognitive, affective and behavioral reactions to authorities’ decisions. Positive effects of procedural justice 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 to obtain fair (or favorable) outcomes (Thibaut & Walker, 1975). Because from this perspective fair procedures are thought to be valued to the extent that they have positive implications for subsequent outcomes, these procedural fairness concerns are referred to as instrumental procedural justice concerns. Another influential explanation put forward is that procedural justice effects are primarily attributable to concerns about one’s social identity. From this perspective, procedural fairness effects are thought to occur because people are concerned about the relationship to the group the authority represents. According to this view, people react positively to fair treatment because it indicates that the authority is trustworthy, that they are respected members of the group, and that they have relatively high status in the group (Lind & Tyler, 1988; Tyler & Lind, 1992). Such information indicates a positive social identity and hence should have positive effects on self-esteem (Koper, Van Knippenberg, Bouhuijs, Vermunt, & Wilke, 1993). These concerns are referred to as relational procedural justice 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., Brockner et al., 1998; De Cremer & Sedikides, 2005; De Cremer, Van Knippenberg, Van Dijke, & Bos, 2004; Huo, 2003; Huo, Smith, Tyler, & Lind, 1996; Lind, Kanfer, & Earley, 1990; Smith, Tyler, Huo, Ortiz, & Lind, 1998; Ståhl, Van Proosijen, & Vermunt, 2004; Tyler, 1989, 1994; Tyler & Degoey, 1995, 1996; Vermunt, Van Knippenberg, Van Knippenberg, & Blaaw, 2001). Surprisingly however, no studies have used the most direct and conclusive approach to test the causal role of instrumental and relational concerns in procedural fairness effects. 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 variations in authority treatment. As a result, it is yet unknown whether variations in any (or both) of the motives proposed to account for procedural fairness effects indeed affect
how people react to treatment 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 variations in treatment by an authority. Before we delineate the details 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 than are self-reported instrumental concerns (Tyler, 1994).

Lind and his colleagues (Lind et al., 1990) approached this issue by examining differences in 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 or after a decision had been made. People were found to react positively to an opportunity to voice (vs. 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 not influence the decision, non-instrumental components are needed to account for the positive effects of voice on reactions to decisions. However, because participants reported elevated levels of perceived control following postdecision voice as compared to no voice, instrumental explanations of postdecision voice cannot be ruled out entirely. Furthermore, the nature of the non-instrumental components suggested to contribute to voice effects could not be determined on the basis of this study.

Van Prooijen and his colleagues (Van Prooijen, Van den Bos, & Wilke, 2002) recently 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 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, in many situations information about one’s status can also carry instrumental benefits. Unfortunately, Van Prooijen et al. did not compare the impact of their status manipulation to a manipulation that enhanced the salience of more instrumentally related concepts. Furthermore, the operation of relational concerns (as compared to instrumental concerns) was not directly measured in this research. As a result, it is yet unknown whether the explanation favored by Van Prooijen et al. is
conclusive, because on the basis of their study we cannot conclude whether similar (or different) effects would be obtained when making instrumental concerns more salient.

Other studies have tried to infer effects of instrumental and relational concerns by examining the moderating role of self-esteem on reactions to procedural fairness. From an instrumental perspective it has been proposed that people with high self-esteem should react more positively to voice procedures than people with low self-esteem (Brockner et al., 1998). The argument underlying this prediction is that people with high self-esteem should feel more confident than people with low self-esteem that they could positively influence the decision. As a result, people with high self-esteem should value voice to a larger extent than people low in self-esteem. From a relational perspective, however, the opposite relationship would be predicted, as people low in self-esteem should have the strongest concerns about their status in the group. Unfortunately, the empirical evidence is scarce as well as inconsistent. Two studies support the relational prediction (De Cremer et al., 2004; Vermunt et al., 2001), whereas one set of studies found support for the instrumental prediction (Brockner et al., 1998). Recently it has been proposed that this inconsistency might be due to cultural differences in performance goal orientation (Van den Bos, Steiner, Van Yperen, & Dekker, 2005). Other researchers have argued that the inconsistency might be resolved by focusing on self-esteem instability (or other forms of self-uncertainty), which should be more clearly related to relational concerns than the level of self-esteem (De Cremer & Sedikides, 2005).

Finally, other studies have tried to infer the impact of relational and instrumental concerns on 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 (vs. weakly) with the group the authority represents (e.g., Huo et al., 1996; Huo, 2003; Tyler & Degoeij, 1995, 1996). By contrast, willingness to accept decisions is more strongly associated with outcome favorability when people identify weakly (vs. strongly) with the group the authority represents (e.g., Huo et al., 1996; cf. Ståhl, Vermunt, & Ellemers, in press). Furthermore, experimental studies have shown that procedural fairness generally has stronger 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), and when people are included rather than excluded from a group (Van Prooijen, Van den Bos, & Wilke, 2004). By contrast, 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. These findings are consistent with a relational explanation of procedural fairness when we assume that information about one’s relationship to the group (which is supposedly conveyed through the fairness of procedures) becomes more important when the authority is from a group that is a part of one’s social identity (Tyler & Lind, 1992).

The Missing Link: Testing the Assumed Psychological Processes
Taken together, the research reviewed above is consistent with the idea that relational concerns may play a role in procedural fairness effects, whereas people who are instrumentally concerned react more strongly to the favorability of procedures and outcomes. However, although a substantial number of studies obtained evidence consistent with these hypotheses, no studies to date have actually tested them directly.

A first problem is that 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 vs. instrumental concerns, and examine its consequences.

A second problem 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 or measures. For example, relational concerns have been assumed to be higher in encounters with ingroup authorities (vs. outgroup authorities), whereas instrumental concerns have been assumed to be higher in encounters with outgroup authorities (vs. ingroup authorities, e.g., Smith et al., 1998; Ståhl et al., 2004). In a similar vein, relational concerns have been assumed to be particularly high among people who identify strongly with the group, whereas instrumental concerns were assumed to play a role in the responses of low identifiers (e.g., Huo et al., 1996; Ståhl et al., in press). Thus, although the operation of relational vs. instrumental concerns has been inferred to account for a range of findings observed in different studies, it was never directly established whether such concerns were actually activated, nor was it examined whether these concerns actually caused the further 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 treatment 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 reactions to authority treatment. Two hypotheses will be tested in these studies. The first hypothesis is primarily based on previous findings that people react more strongly to the favorability of treatment in encounters with outgroup (vs. ingroup) authorities (Ståhl et al., 2004; cf. Duck & Fielding, 2003). To the extent that these findings are attributable to differences in the level of instrumental versus relational concerns, we predict that people with salient instrumental concerns should react more strongly to the favorability of treatment than people with salient relational concerns.

The second hypothesis to be tested here is based on the relational model (Tyler & Lind, 1992) and research indicating that people react more strongly to the fairness of treatment when faced with an ingroup authority (vs. outgroup authority, e.g., Smith et al., 1998; Ståhl et al., 2004), when ingroup identification is high (vs. low, e.g., Huo et al., 1996), when self-esteem is low (vs. high, Vermunt et al., 2001), when self-certainty is low
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(vs. high, De Cremer & Sedikides, 2005), or when status is salient (vs. not salient, Van Prooijen et al., 2002). To the extent that these findings are attributable to differences in the level of relational versus instrumental concerns, we predict that people with salient relational concerns should react more strongly to the fairness of treatment than people with salient instrumental concerns.

Overview of Studies

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 treatment when instrumental concerns are salient than when relational concerns are salient. To manipulate the salience of instrumental versus relational concerns we induced uncertainty concerning an instrumental issue versus uncertainty concerning a relational issue (cf. Van den Bos, 2001). This was followed by a manipulation of the favorability of authority treatment. To facilitate comparisons with previous research (e.g., Ståhl et al., 2004; Van Prooijen et al., 2002), our main dependent variables were participants’ evaluations of the authority.

The second study intended to obtain converging evidence for our predictions, with a different methodology. Specifically, instrumental and relational concerns were manipulated by means of unobtrusive conceptual priming procedures. Then participants read a short scenario in which authority treatment was manipulated. At the same time we expanded the experimental design by including a fair condition to enable a test of the second hypothesis; that authority evaluations are more strongly affected by the fairness of treatment 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 concerns were once again manipulated by means of conceptual priming procedures, after which participants actually experienced and responded to variations in authority treatment.

Experiment 7

Method

Participants and Design

Students (N = 97) at the University of Skövde (male = 33; female = 64; mean age = 25) were randomly assigned to conditions in a 2 (Salience: relational /instrumental) x 2 (Treatment: 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 seconds. 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. 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).” 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, authority treatment 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). 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 authority treatment 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 perceived favorability of treatment 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) x 2 (Treatment: favorable/unfavorable) Analysis of Variance (ANOVA).

Parts Considered

Only a main effect of treatment 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 treatment 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 that 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 treatment 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 to a larger extent reported thinking about the instrumental issue \((M = 4.47, SD = 1.99)\) 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 emotion 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 turned out to be 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, \( F(1, 93) = \)
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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 x 2 analysis of covariance (ANCOVA) with irritation as a covariate only yielded a significant prime by treatment interaction, \( F(1, 92) = 4.33, p < .05 \). All adjusted means are presented in Table 5. To further test our hypothesis we investigated the simple effect of treatment within each salience condition, while controlling for differences in irritation. As predicted, the simple effect of treatment 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 favorable treatment than to unfavorable treatment, a pattern that was non-significantly reversed in the relational condition.

Table 5

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Relational</th>
<th>Instrumental</th>
</tr>
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<tbody>
<tr>
<td>Favorable</td>
<td>( M = 5.67 )</td>
<td>( M = 6.03 )</td>
</tr>
<tr>
<td></td>
<td>( SD = (1.04) )</td>
<td>( SD = (0.87) )</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>( M = 5.92 )</td>
<td>( M = 5.31 )</td>
</tr>
<tr>
<td></td>
<td>( SD = (1.21) )</td>
<td>( SD = (1.33) )</td>
</tr>
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*Note.* Higher values indicate more positive authority evaluations.

Discussion

To the best of our knowledge, the present study provided the first direct test of the assumed causal links between instrumental and relational concerns on the one hand and reactions to authority treatment on the other. The findings confirm that people do react differently to treatment when instrumental (vs. relational) concerns are salient. Specifically, people tend to evaluate an authority more positively following favorable treatment than following unfavorable treatment when instrumental concerns are salient. By contrast, evaluations of the authority were unaffected by the favorability of treatment.
when relational concerns were salient. These patterns extend previous studies demonstrating that people react more positively to favorable treatment than to unfavorable treatment in situations where instrumental concerns have been assumed to be high, such as when faced with an outgroup (vs. ingroup) authority (Ståhl et al., 2004, Experiment 2, cf. Duck & Fielding, 2003; Ståhl et al., in press).

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 concerns would produce similar effects. Secondly, the treatment manipulation in the present study was either favorable or unfavorable for participants, but did not include a fair (i.e. accurate; Leventhal, 1980) treatment condition. As a result it was not possible to test the hypothesis that people with salient relational concerns should discriminate between fair treatment and unfair treatment to a larger extent than people with salient instrumental concerns. We addressed these issues in our second study.

### Experiment 8

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 concerns in a more subtle way, we used a conceptual priming procedure (Bargh & Chartrand, 2000). Following the primes, participants read a short scenario containing the treatment manipulation. Our main dependent variables once again focused on participants’ evaluations of the authority.

### Method

**Participants and Design**

Students ($N = 90$) at a Skövde Gymnasium ($31 = \text{male}; 59 = \text{female}; \text{mean age} = 18$ years) were randomly assigned to conditions in a 2 (Prime: relational/instrumental) x 3 (Treatment: 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
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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). 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 seven of the word strings contained a word theoretically associated with instrumental concerns (e.g., control, gain) and five 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, seven of the word strings contained words theoretically associated with relational concerns (e.g., respect, trust) and five 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). Finally, 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 treatment 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 treatment 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 = not at all; 7 = 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 (α = .88). To check the
manipulation of treatment 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) x 3 (Treatment: fair/favorable/unfavorable) ANOVAs. For hypothesis testing, ANOVAs were followed up by planned contrasts (Rosenthal & Rosnow, 1985).

Favorability

Only a main effect of treatment 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 the unfavorable condition ($M = 2.38, SD = 1.43$). A Tukey test indicated that the differences between all three means were significant ($p < .05$).

Accuracy

Only the expected main effect of treatment 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 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 treatment 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.

Evaluations of the Authority

A main effect of treatment was found, $F(2, 84) = 8.93, p < .001$. More importantly, the main effect was qualified by a significant prime by treatment interaction, $F(2, 84) = 4.80, p < .025$. All means are presented in Table 6. To test the first hypothesis more directly we investigated differences in reactions to favorable versus unfavorable treatment within the instrumental and relational condition separately. As predicted, participants
reacted more positively to favorable treatment than to unfavorable treatment in the instrumental condition, $t(84) = 3.50$, $p < .001$, $r = .36$; but not within the relational condition, $t(84) = -0.37$, ns.

To test the second hypothesis, following up on the significant prime by treatment interaction, we investigated differences in reactions to the fair treatment condition versus the two unfair treatment conditions (i.e. the favorable and unfavorable treatment conditions) within the relational and instrumental condition separately. As predicted, participants reacted more positively to fair treatment ($M = 4.37$, $SD = 1.29$) than to unfair treatment ($M = 3.41$, $SD = 1.54$) in the relational condition, $t(84) = 2.40$, $p < .01$, $r = .25$. Notably, although participants also reacted more positively to fair treatment ($M = 4.71$, $SD = 1.20$) than to unfair treatment ($M = 3.49$, $SD = 1.23$) in the instrumental condition, $t(84) = 3.01$, $p < .005$, $r = .31$, clearly this effect was driven solely by the extremely negative reactions to unfavorable treatment in the instrumental condition. Thus, contrasting the fair treatment condition against the unfavorable treatment 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 treatment condition against the favorable treatment condition, the contrast was significant only in the relational condition, $t(84) = 2.27$, $p < .025$, $r = .24$; but not within 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 treatment rather than by the fairness of treatment.

<table>
<thead>
<tr>
<th>Table 6</th>
<th>Means and Standard Deviations of Authority Evaluations as a Function of Treatment and Prime (Experiment 8).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime</td>
<td>Relational</td>
</tr>
<tr>
<td>Treatment</td>
<td>$M$</td>
</tr>
<tr>
<td>Fair</td>
<td>4.37</td>
</tr>
<tr>
<td>Favorable</td>
<td>3.23</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>3.61</td>
</tr>
</tbody>
</table>

*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 favorable treatment than to unfavorable treatment 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 treatment than to unfair treatment 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 treatment than to fair treatment, but did not differentiate between fair and favorably unfair treatment 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 treatment.

Experiment 9

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 treatments. A second aim was to see whether our findings generalize to a different dependent variable. Both Study 1 and 2 focused on evaluations of the authority. Although effects on authority evaluations are central to the theoretical perspective we address, it is important to examine whether the psychological mechanisms under investigation also extend to measures that are more closely linked to actual behavioral responses – such as behavioral intentions (e.g., Ajzen, 1991). 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; mean age = 23) were randomly assigned to conditions in a 2 (Prime: relational/instrumental) x 3 (Treatment: 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
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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 the first study, 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 the first study and after each round they received identical feedback as in the first study 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. The piece of paper contained an identical scrambled sentence task as the one used in the second study. 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 the first study, a message from the experimenter then appeared on the screen including the treatment 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 (vs. unfavorable) condition were informed that the experimenter would only consider the third (vs. 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 would you then do so?”, and “When there is an opportunity to protest against the experimenter, to what extent would you then do so?”. These items were averaged to create a reliable measure of protest intentions (α = .82). To check comprehension of the treatment 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 prime 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) x 3 (treatment: 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 treatment manipulation was perceived as intended.

Affect

No significant effects were found on the Positive Affect scale ($D = .84$) or the Negative Affect scale ($D = .80$). 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 treatment interaction was found on participants’ intentions to protest against the authority, $F(2, 102) = 3.75$, $p < .05$. All means are presented in Table 7. To test the first hypothesis more directly we investigated differences in reactions to the favorable versus unfavorable treatment condition within the
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instrumental and relational condition separately. 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, $t(102) = -.65, ns.$

Table 7
Means and Standard Deviations of Intentions to Protest as a Function of Treatment and Prime (Experiment 9).

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Prime</th>
<th>Relational</th>
<th>Instrumental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair</td>
<td>Relational</td>
<td>2.28</td>
<td>3.08</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>(1.06)</td>
<td>(1.66)</td>
</tr>
<tr>
<td>Favorable</td>
<td>Relational</td>
<td>2.83</td>
<td>1.86</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>(1.46)</td>
<td>(1.25)</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>Relational</td>
<td>3.14</td>
<td>2.69</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>(1.56)</td>
<td>(1.43)</td>
</tr>
</tbody>
</table>

Note. Higher values indicate stronger intentions to protest.

Following up on the significant two-way interaction between prime and treatment, to test the second hypothesis we investigated differences in reactions to the fair versus unfair treatment 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) treatment ($M = 2.99, SD = 1.50$) than following fair treatment ($M = 2.28, SD = 1.06$). By contrast, when instrumental concerns were activated, people had stronger protest intentions following fair treatment ($M = 3.08, SD = 1.66$) than following unfair (favorable and unfavorable) treatment ($M = 2.28, SD = 1.39$), $t(102) = 1.97, p < .05, r = .19$. As can be seen in Table 3, the latter effect was attributable to the fact that people reported very low protest intentions following favorable treatment ($M = 1.86$) when instrumental concerns were activated. Thus, when instrumental concerns were activated, reactions were once again directed by the favorability of treatment.

Discussion

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

We also replicated the finding that fairness of treatment has different effects when relational (vs. instrumental) concerns are activated. Specifically, when relational concerns were activated, unfair treatment yielded stronger protest intentions than fair treatment. By contrast, fair treatment yielded significantly stronger protest intentions than unfair treatment when instrumental concerns were activated. This latter effect was due to the fact that protest intentions were very weak following favorably unfair treatment when instrumental concerns were activated. Thus, support was found also for our second hypothesis.

**General Discussion**

The present research is the first to directly examine the causal effects of relational and instrumental concerns on reactions to variations in treatment by authorities. In three studies, one scenario study (Study 2) and two more self-involving studies (Study 1 & 3), we consistently showed that people react more strongly to the *favorability* of treatment when instrumental (vs. relational) concerns are salient. This pattern was found on evaluations of the authority (Study 1-2) 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 (Study 2-3). Thus, strong support was obtained for our first hypothesis.

Notably, 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 treatment when the authority is from an outgroup (vs. ingroup). In line with the relational model, this has been explained by arguing that people react more strongly to the favorability of treatment 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 and hence also provides support for the explanation proposed by the relational model (Tyler & Lind, 1992) that different levels of relational and instrumental concerns may account for differential responses to treatment by ingroup versus outgroup authorities.

Two of the studies reported here (Study 2-3) consistently show that the salience of relational (vs. instrumental) concerns also affects the impact of *fairness* of treatment. Specifically, these studies suggest that people react more strongly to the fairness of
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treatment when relational (vs. 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. Notably, these findings complement previous results from studies in which stronger effects of procedural fairness in encounters with ingroup authorities (vs. outgroup authorities, e.g., Smith et al., 1998; Ståhl et al., 2004), among high ingroup identifiers (vs. low ingroup identifiers, e.g., Huo et al., 1996; Ståhl et al., in press), and among people high on self-esteem instability (vs. low on self-esteem instability, De Cremer & Sedikides, 2005) have been attributed to differences in the level of relational versus instrumental concerns. Importantly, in these previous studies the underlying psychological processes were never explicitly examined.

The present research is thus the first to offer direct 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). Notably, the studies reported here also extend existing insights into these processes because previous work in this area mainly focused on (lack of) opportunities for voice to manipulate procedural fairness, whereas in the present study we addressed other elements of fair vs. unfair treatment (i.e., accuracy, Leventhal, 1980; cf. Ståhl et al., 2004; Vermunt et al., 1996).

Now that the direct effects of relational and instrumental concerns on reactions to variations in treatment from an authority have been demonstrated, a fruitful approach for future research would be to go one step further and 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 and among people high in self-esteem instability, than among people who do not identify strongly with the group or among people low in self-esteem instability. This approach also makes it possible to examine whether activation of instrumental versus relational concerns mediates effects of authority’s group membership, ingroup identification and self-esteem instability on reactions to variations in treatment by an authority.

Although we think that the studies presented here provide compelling evidence for the causal role of relational and instrumental concerns in reactions to authority treatment, our findings also raise some intriguing additional questions that can be addressed in future research. First of all, relational concerns refer to a range of considerations that may play a role (e.g., respect, trust). Similarly, a variety of instrumental concerns can be relevant to people (e.g., gain, control). On the one hand, this reflects the multi-faceted nature of these constructs. However, future theory and research might focus on the more precise question of whether there are specific aspects of the relevant constructs that contribute most to the processes under investigation.

A related question is whether the effects of the primes obtained in the present research indeed represent effects of activated motivational states, as was intended, or
whether they are better understood as perceptual priming effects. For example, our interpretation is that the relational prime activated the goal to attain respect and status. However, another possibility is that the relational prime simply activated the concepts of respect and status, which in turn affected the terms in which the authority’s behavior was perceived (cf. Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trotchel, 2001). Notably, however, people did not simply perceive the treatment as more respectful (an assimilation effect) or less respectful (a contrast effect) when relational words were primed, or as more (or less) favorable when instrumental words were primed. Such assimilation and contrast effects are typically found in research on perceptual priming effects (e.g., Srull & Wyer, 1979). In the present study, however, the primes interacted with the authority’s behavior to affect reactions to authority treatment. In our view, this more complex pattern supports the motivational interpretation that the primes activated relational vs. instrumental goals, which in turn moderated the value of fair (vs. favorable) treatment. This makes it less likely that perceptual priming (instead of goal activation) caused the observed effects.

A possibility to examine this more explicitly would be to explore the persistence of the effects of relational and instrumental primes over time. 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, primes that activate relational versus instrumental goals, should make it possible to observe findings such as the ones reported here after relatively longer periods of time. By contrast, effects due to perceptual assimilation vs. contrast with the primes should only be visible for a short period of time after induction of the prime (cf. Bargh et al., 2001).

In sum, in a set of three studies using different methodologies we have demonstrated that people react less strongly to favorability of treatment and more strongly to fairness of treatment when relational (vs. instrumental) concerns are activated. Taken together, these findings provide strong 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.