Procedural Fairness Responses in the Context of Self-Uncertainty

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From one vantage point, the world appears to be an uncertain place. Political changes, economic downturns, and natural disasters seem to work interactively in an increasingly interdependent and shrinking globe to punctuate the unpredictability of daily life. To make matters worse, terror management theory (Greenberg, Pyszczynski, & Solomon, 1986) reminds us that we are about as significant as lima beans in an indifferent universe where bad things (such as death, for example) can happen at any time. From another vantage point, though, the world seems to be a reasonably secure place. Many countries have stable democratic regimes, flourishing economies, and high-quality health systems with units ready for emergency action. In addition, some people cope better with fear of death than others by internalizing cultural norms and striving for symbolic immortality (see Landau et al., Chapter 11).

Likewise, from one vantage point, the social environment appears to be highly fluid. Sometimes people succeed at performance tests or romantic pursuits, and at other times they fail. Sometimes they are told they are insightful and socially adept, and at other times they are told they are rather clueless and socially inept (Sedikides & Gregg, 2003; see also Leippe & Eisenstadt, Chapter 3, and Reich & Arkin, Chapter 17). In addition, mixed messages often put people in a quandary (Sedikides & Green, 2000, 2004). A friend may praise one’s good listening skills but criticize their haircut. A partner may exalt one’s good writing skills but criticize their fashion sense. The editors of an edited volume may compliment the authors’ informal and dialectical writing style but wonder how the write-up has anything to do with the objectives of the volume. From another vantage point, though, the social environment can be relatively stable. Following their adolescent and early adult years, most people settle on professional situations and close relationships that offer relatively predictable reward or feedback contingencies (see Chang-Schneider & Swann, Chapter 12). And, eventually, the volume editors are bound to settle in recognition of the authors’ brilliance.

This social duality appears to be mirrored in the self-concept. From one vantage point, the self-concept is not necessarily the most rock-solid of structures. Self-descriptions vary markedly on a day-to-day basis (Allen & Potkay, 1973). They also vary depending on intrapersonal factors, such as ease of retrieval. For example, people are more likely to rate themselves as assertive when they have the easy task of retrieving 6 assertive behaviors rather than the difficult task of retrieving 12 assertive behaviors (Schwarz et al., 1991).
Moreover, self-descriptions vary depending on self-perception processes. For example, people infer they are more religious when they rate themselves on a religiosity questionnaire that contains a disproportionate number of pro-religious rather than anti-religious behaviors (Salancik & Conway, 1975). From another vantage point, though, the central or important self-attributes are remarkably solid and resistant to change. For example, these self-attributes deflect the force of externally provided negative feedback (Markus, 1977), internally generated feedback that has unfavorable implications for the self (Sedikides, 1993), and transient mood (Sedikides, 1995).

The self-concept duality is also reflected in chronic individual differences. This topic has a cherished history in personality and social psychology. For the purposes of this chapter, we will only cover individual differences in level of uncertainty. This broad individual difference has been studied under such nuanced rubrics as uncertainty orientation (see Szeto & Sorrentino, Chapter 6), causal uncertainty (see Weary, Tobin, & Edwards, Chapter 5), personal need for structure (Neuberg & Newsom, 1993), need for cognitive closure (Webster & Kruglanski, 1994), and coping with uncertainty (Greco & Roger, 2001). A form of this individual difference, self-uncertainty, has been the focus of our research (De Cremer & Sedikides, 2005).

**SELF-UNCERTAINTY: THE REDUCTION OF AN UNPLEASANT STATE**

Self-certain individuals feel safe and secure in the knowledge of their personal attributes, their emotions, their goals and aspirations, and their behaviors. Self-uncertain individuals, on the other hand, are plagued by insecurities regarding their self-knowledge. We will turn our attention to the psychological state of self-uncertain persons. What does it feel like to be self-uncertain? Why is self-uncertainty bad? What are some negative consequences of self-uncertainty?

To begin with, self-uncertainty is an aversive state (Hogg, 2001; Lopes, 1987; Sorrentino & Roney, 1986). It is associated with unpleasant feelings and with the perception that life lacks purpose, direction, and meaning. In addition, self-uncertainty is a disruptive state, as it blocks the ability to make decisions and to act upon them (McGregor, 2003; see also Marigold et al., Chapter 13). Surely, self-uncertain individuals are motivated to decrease their level of self-uncertainty.

How do people go about decreasing self-uncertainty? They do this by comparing their attitudes, abilities, and feelings to those of others, according to Festinger (1954). In support of this framework, subsequent research has verified that situational variables (e.g., life transitions, stress, competition, novelty) and dispositional variables (e.g., neuroticism, depression) that are related positively to self-uncertainty instigate or intensify social comparison tendencies (Buunk & Ybema, 1997; Campbell, 1990; Gibbons & Buunk, 1999; Weary, Elbin, & Hill, 1987). In a similar vein, people cope with experimentally induced self-uncertainty by selecting high-diagnosticity tasks (e.g., credible intelligence test) as opposed to low-diagnosticity tasks (e.g., the local newspaper's crossword puzzle) to test their skills or abilities (Trope, 1983; see also Carroll, Chapter 15, and Chen et al., Chapter 16).

Another way to fend off self-uncertainty is through the process of self-categorization and group identification (Hogg, 2000). Identification can act as a buffer, reducing uncertainty, because people derive their self-knowledge and self-worth, at least in part, from the groups with which they identify. Group identifications serve as a guide for the thoughts, emotions, and actions of the individual members, allowing the self to be...
defined in group prototypical terms (Brewer & Brown, 1998; Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Indeed, as field and laboratory research indicates, self-uncertain persons identify more strongly with their real or experimentally induced group (Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007).

These self-uncertainty reduction strategies have affective and motivational benefits for the self. For example, downward social comparison can elevate self-esteem and mood (Wills, 1981), whereas upward social comparison can fuel inspiration and goal pursuits (Collins, 2000). These strategies also have informational benefits. For example, by gaining insights into their achievement potential and ability level, people clarify their self-concepts (Strube, Lott, Le-Xuan-Hy, Osenberg, & Deichmann, 1986). Interestingly, people can clarify not only present but also future self-concepts. Women expecting to become mothers, for example, cope with self-uncertainty by seeking information relevant to a first birth and using this information to construct their “mother” identity; after becoming mothers, they seek and incorporate into their self-definitional information relevant to child care (Deutsch, Ruble, Fleming, Brooks-Gunn, & Stangor, 1988). Similar processes apply to students who become employees (Morrow & Richards, 1996), to healthy people who become HIV+ (Alonzo & Reynolds, 1995), or to bystanders who become protesters (Drury & Reicher, 2000). In all, self-uncertainty reduction strategies can promote a more extensive, well-articulated and useful body of self-knowledge (Gibbons, 1983; Nasby, 1989; Turner, 1978) and can lead both to effective self-regulation (Carver & Scheier, 1982; Mullen & Suls, 1982) and effective emotion-regulation (Salovey, Hsee, & Mayer, 1993; Swinkels & Giuliano, 1995).

In summary, we have zeroed in on self-uncertainty as an individual difference. We have argued that self-uncertainty is an unpleasant psychological state, and that people implement several strategies to decrease it. Finally, we have maintained that self-uncertainty reduction is functional, as it has beneficial implications for the self-concept, self-regulation, and emotion regulation.

CAPITALIZING ON PROCEDURAL FAIRNESS TO COPE WITH SELF-UNCERTAINTY

We will now step back and explore another self-uncertainty reduction strategy. In particular, we will ask how people capitalize on aspects of their social environment to curtail their self-uncertainty. This question is relevant for at least two reasons. First, the social environment and social interactions comprise the main currency of daily life. Humans are social beings (to drop an overused cliché) and live highly interdependent lives. Even before symbolic interactionists and the emergence of social psychology as a discipline, Friedrich Nietzsche (1891) astutely observed that “The THOU is older than the I.” Second, given its omnipresence and complexity, the social environment poses certain challenges on the individual. These challenges—sometimes initiated by friends, other times by colleagues or managers—have implications for self-uncertainty.

We focus, in particular, on how self-uncertain individuals respond to variations in the social and organizational environment. Organizations (e.g., companies, courtrooms, universities, clubs, police stations) operate on the basis of rules and procedures consensually agreed upon by their members. These rules and procedures take into account people’s world-views, defined as personal beliefs and assumptions that describe reality (Kolotko-Rivera, 2004). An important example of world-views is beliefs and assumptions about fairness. People believe, or perhaps have a need to believe, that the world—including the organization to which they belong—is just and that they will be treated fairly (Miller, 2001;
We are concerned here with beliefs of a particular type of fairness, namely procedural fairness. This refers to whether procedures that are used to decide on how to allocate outcomes (e.g., salary increases, allocation of resources, policy-making) in organizational settings are perceived as fair or unfair (Thibaut & Walker, 1975; Tyler, 1988). Procedural fairness impacts on organizational life, as it influences employees' mood and emotions (Van den Bos, 2001a), their impressions of the supervisor and support for him or her (Tyler & Lind, 1992), compliance with the supervisor (Lind & Tyler, 1988), organizational commitment (McFarlin & Sweeney, 1992), organizational citizenship (Moorman, 1991), cooperation (De Cremer & Van Vugt, 2002), workplace aggression (Neuman & Baron, 2005), revenge (Skarlicki & Folger, 1997), job satisfaction and psychosomatic well-being (Schmitt & Dorfel, 1999), turnover intention (Alexander & Ruderman, 1987), acceptance of task assignments (Earley & Erez, 1987; Lind, Kanfer, & Earley, 1990), counterproductive work behaviors (Cohen-Charash & Spector, 2001), and employee theft (Greenberg, 1990). In fact, information about procedural fairness influences organizational life, or more generally group life, even in the absence of any knowledge about the outcome that procedures are assumed to bring about (Folger, 1977; Van den Bos, 2005).

One obvious factor that affects perceptions of organizational fairness is whether employees are kept involved in the running of the organization (for examples of other factors, see Leventhal, 1980). Does the authority (e.g., supervisor, manager, group leader) consult with the employees or does she/he impose their will on them? Does the authority request the active input of employees in the decision-making process or does she/he merely announce to them these decisions after they are made? Does the authority communicate clearly the rules of the decision-making process and follow them consistently or does she/he arrive at arbitrary directives on group or organizational practices? High employee involvement in the running of the organization is likely to result in perceptions of procedural fairness, and this is indeed what many studies have found (for recent reviews, see De Cremer & Tyler, 2005; Tyler, 1990; Van den Bos & Lind, 2002).

How will individuals respond to the provision or deprivation of procedural fairness? More importantly, does procedural fairness also have implications for self-uncertainty? Does self-uncertainty moderate responses to variations (provision or deprivation) of procedural fairness? These are the questions we asked in our research.

These questions, which link the self with the procedural fairness arena, are timely. Recent research has documented that enactment of fair procedures represents a source of self-relevant information. On the one hand, this enactment fosters the belief that organizational members will be able to exert some control over outcomes. More importantly, procedural enactment provides signals about one's reputation or social standing (De Cremer & Sedikides, 2007) and about one's belongingness (De Cremer & Blader, 2006). These signals, in turn, influence how organizational members will evaluate themselves (Baumeister & Leary, 1995).

SELF-UNCERTAINTY AS A MODERATOR OF PROCEDURAL FAIRNESS

As we mentioned above, procedural fairness has important self-relevant implications. Building upon this observation, researchers have started looking more closely at how differences in self-evaluation influence people's reactions to procedural fairness. Indeed, past research has already examined the moderating role of self-esteem level (i.e., high vs. low).
Operationalization of Self-Uncertainty

We used a converging operations approach (Campbell & Fiske, 1959) to index self-uncertainty. In particular, we operationalized self-uncertainty in terms of three constructs: self-doubt, self-instability, and self-uncertainty. These constructs are moderately correlated (De Cremer & Sedikides, 2005).

Self-doubt captures the sense of disbelief and distrust in one's abilities, qualities, or self-worth (see Oleson & Steckler, Chapter 21). Persons high on self-doubt are assumed to experience high degrees of self-uncertainty. We assessed self-doubt with the 8-item Self-Doubt Subscale of the Subjective Overachievement Scale (Oleson, Poehlmann, Yost, Lynch, & Arkin, 2000). Example items are: "When engaged in an important task, most of my thoughts turn to bad things that might happen (e.g., failing) rather than to good," "I sometimes find myself wondering if I have the ability to succeed at important activities," and "As I begin an important activity, I usually feel confident in my ability" (reverse scored).

Self-concept unclarity refers to the extent to which one defines their self-attributes clearly and confidently, as well as the extent to which one perceives their self-attributes as temporally stable and internally consistent. Persons high on self-concept unclarity experience confusion and, thus, uncertainty about themselves. We assessed self-concept unclarity with the 12-item scale developed by Campbell et al. (1996). Example items are: "I spend a lot of time wondering about what kind of person I really am," "My beliefs about myself often conflict with one another," and "In general, I have a clear sense of who I am and what I am" (reverse scored).

Self-esteem instability refers to the extent to which people perceive their self-esteem as fluctuating (see Kernis & Lakey, Chapter 20). Those who do so have insecure and unsettled feelings of self-worth, and are thus high on self-uncertainty (Kernis, Paradise, Whitaker, Wheatman, & Goldman, 2000). We assessed self-esteem instability with the 5-item Labile Self-Esteem Scale (LSES; Dykman, 1998). Example items are: "I'm often feeling good about myself one minute, and down on myself the next minute," "My self-esteem shifts rapidly from feeling good about myself on one day to feeling bad about myself the next day," and "How I feel about myself stays pretty much the same from day to day" (reversed scored).

Operationalization of Procedural Fairness

We used two operationalizations of procedural fairness. One was in terms of voice and the other in terms of accuracy.

Voice refers to whether organizational members are allowed to have an input (e.g., opinion) to the organizational decision-making process (Folger, 1977; Lind, Kanfer, & Earley, 1990). Participants who are granted a voice perceive organizational procedures as fairer compared to those who are denied a voice (McFarlin & Sweeney, 1996; Van den Bos, 1999; see also Metcalfe & Mischel, 1999; Sujan & Unger, 1992). Thus, voice is a key component of what constitutes fairness (i.e., perceived as fair). The inclusion of voice reflects a commitment to the principle of participation in decision-making, which is a key component of procedural fairness (see Metcalfe & Mischel, 1999; Sujan & Unger, 1992).

Accuracy, on the other hand, reflects the extent to which the decision-making process produces the correct result. Participants who perceive that the decision-making process produces the correct result perceive the process as fair (see Metcalfe & Mischel, 1999; Sujan & Unger, 1992).
We induced high versus low procedural fairness (i.e., voice vs. no-voice) both in scenario and laboratory settings. In scenario settings, participants imagined that they were employed by a company, and a brief description of this company followed. In laboratory settings, participants believed that they were members of either a natural or laboratory-formed group. In both types of settings there was an organizational or group task to be performed. For example, the task for the manager was to allocate a substantial company bonus to employees, and for the University President to decide on the use of an electronic planner for students to submit their coursework. Subsequently, participants were randomly assigned to the voice versus no-voice conditions. In the voice condition, they were informed that the manager or University President was interested in, and soliciting, their opinion about the task at hand. Participants proceeded with providing their opinion in writing. In the no-voice condition, participants were informed that the manager or University President had already made, or would make shortly, the organizational decision unilaterally. The manager or University President was not interested in their opinion, and would not solicit it.

Accuracy refers to whether organizational procedures (e.g., hiring practices) are perceived as transparent and accurate by prospective employees. Accuracy is considered a key element of procedural fairness (Leventhal, 1980). Participants perceive accurate organizational procedures as more fair than inaccurate procedures (De Cremer, 2004; Van den Bos, Vermunt, & Wilke, 1997; Vermunt, Wit, Van den Bos, & Lind, 1996). In our research, all participants imagined that, as part of their job application to a company, they were screened on nine aptitudes (e.g., intelligence, technical matters, language skills, achievement motivation). Participants were then assigned randomly to the accuracy versus inaccuracy conditions. In the accurate condition, they learned that the hiring decision would be based on their performance on all nine aptitudes. In the inaccurate condition, they learned that the hiring decision would be based on their performance on a single aptitude.

Assessment of Responsiveness to Procedural Fairness

As with self-uncertainty and procedural fairness, we adopted a converging-operations approach to assess responsiveness to variations in procedural fairness. In particular, we operationalized responsiveness in terms of affective, cognitive, and behavioral reactions.

Affective reactions were assessed in terms of negative and positive affect. With regard to negative affect, participants indicated how sad, sorrowful, furious, anxious, and lonely they felt as a result of the organizational authority's (e.g., manager's, University President's) decision. With regard to positive affect, participants indicated the extent to which they were happy and content with the way they were treated by the authority.

Cognitive reactions were assessed in terms of fairness judgments. In particular, participants indicated whether they thought that the organizational authority acted in a fair and trustworthy manner, and whether the treatment they received was fair.

Behavioral reactions were assessed in terms of cooperation intentions. Specifically, participants indicated how willing they were to put extra time into the organizational team and its projects, to help other team members or the manager, and to have a just relationship with the managers.

Hypotheses

Although our experimental situation can be deduced from the above discussion, we would like to make it more explicit before proceeding with our hypotheses. First, participants completed a self-uncertainty scale (i.e., self-doubt, self-concept unclarity, self-esteem
Next, participants were introduced to the cover story and were randomly assigned either to the procedural fairness (i.e., voice, accuracy) or procedural unfairness (i.e., no-voice, inaccuracy) treatment conditions. The procedural fairness manipulation check followed; the manipulation was effective in all six experiments that we conducted. Finally, responsiveness to the procedural fairness manipulation was assessed.

The main tenet of our research was that self-certain individuals would be relatively unconcerned about variations in procedural fairness. After all, these individuals can rest on their stock of secure and safe self-cognitions, deriving self-validation from them rather than features of the environment. In contrast, self-uncertain individuals would be relatively concerned with variations in procedural fairness. After all, they would attempt to replete their self-certainty reservoir by relying on external (i.e., social contextual) features rather than internal resources. Self-validation for them would most likely come from desirable changes in the organizational environment. Put somewhat differently, undesirable changes in the organizational environment would signify a self-threat and would thus invite a relatively extreme response. Indeed, past research has shown that self-threat intensifies or polarizes defensive responding (Baumeister, 1998; Campbell & Sedikides, 1999; Sedikides & Gregg, 2003).

More specifically, we hypothesized that self-uncertain individuals would be relatively amenable to organizational events. That is, they would be sensitive and responsive to perceived variations in procedural fairness. In comparison to their self-certain counterparts, they would react with more positive affect, more favorable cognitions (i.e., judgments), and more agreeable behaviors (i.e., cooperative intentions) when the organizational environment was perceived as fair. In contrast, they would react with less positive affect, less favorable cognitions and less agreeable behaviors when the organizational environment was perceived as unfair. We tested this hypothesis in five experiments (De Cremer & Sedikides, 2005, Experiments 1–5) and describe the findings below.

Research Findings

The findings on affective responses confirmed the hypothesis. Self-uncertain individuals manifested relatively intense affective responses to variations in procedural fairness. In particular, they expressed more negative affect (e.g., were sadder, more anxious, and more furious) when they regarded procedures as unfair and expressed more positive affect (e.g., were happier and more content) when they regarded procedures as fair.

The findings on cognitive responses also supported the hypothesis. Self-uncertain persons exhibited relatively vigorous cognitive responses to variations in procedural fairness. Specifically, they judged procedures as less fair when organizational justice was breached and as more fair when organizational justice was upheld.

Finally, the findings on behavioral responses were also consistent with the hypothesis. Self-uncertain individuals were less eager to cooperate (e.g., offer their time for the benefit of the organizational team and its projects, assist the manager or team members) when they perceived the organizational procedures as unfair, and were more eager to cooperate when they perceived the organizational procedures as fair.

CAN SELF-AFFIRMATION RELAX THE RESPONSIVENESS OF SELF-UNCERTAIN INDIVIDUALS?

We have argued that self-uncertain individuals cope by over-relying on external sources. External sources are cues related to the functioning of the organization. These cues, of
course, have personal implications for the individual as they may convey information about respect, appreciation, social acceptance, or social standing (De Cremer & Sedikides, 2007; De Cremer & Tyler, 2005; Lind & Tyler, 1988; Tyler & Lind, 1992). Self-uncertain (compared to self-certain) individuals weigh disproportionately, are over-sensitive to, and overreact to information about both fair and unfair procedures. Self-uncertain individuals intensify responding to unfair procedures, as they consider them personally threatening (Van den Bos et al., 2008).

We questioned, in another experiment, whether an internal self-validation opportunity would relax the responsiveness of self-uncertain individuals to variations in procedural fairness. We operationalized internal self-validation in terms of self-affirmation (Van den Bos, 2001a, Experiment 2; Wiesenfeld, Brockner, & Martin, 1999). As Steele (1988) put it, "self-affirming thoughts should make it easier to be objective about other, self-threatening information; they should reduce the pressure to diminish the threat inherent in this information" (p. 290). First, we measured self-uncertainty and manipulated procedural fairness, as in previous experiments. Next, we manipulated self-affirmation. In the self-affirmation condition, participants spent a few minutes listing three positive self-attributes. In the control condition, participants spent a few minutes listing three features of their immediate physical environment. Finally, we assessed behavioral (i.e., cooperative) intentions.

We hypothesized that a self-affirmation manipulation would be effective among self-uncertain but not self-certain participants. Having just been self-affirmed, self-uncertain participants would cease momentarily to rely on organizational fairness for self-validation purposes and to perceive organizational unfairness as self-threatening. Thus, these participants would show a substantially attenuated reaction to variations in procedural justice.

The results were in line with the hypothesis. In the absence of self-affirmation, self-uncertain (compared to self-certain) participants showed exaggerated responsiveness to variations in procedural fairness, overstating their eagerness to cooperate when procedures were fair and over-withdrawing their eagerness to cooperate when procedures were unfair. In the presence of self-affirmation, however, there was no difference between self-uncertain and self-certain individuals in terms of their responsiveness to variations in procedural fairness. Stated somewhat differently, self-affirmation cancelled out the response extremity of self-uncertain participants.

It is worth emphasizing the potential benefits of these findings for organizations. An organizational authority, for example, might not perceive the relatively extreme responses to organizational decision-making of self-uncertain employees as particularly functional. The authority may perceive such responses as an overreaction rather than a considered and justifiable behavior. In addition, the authority may perceive such responses as disruptive and a threat to organizational morale. Finally, the authority may lack the energy, time, or skills to cope with the interpersonal and organizational consequences of such responses. Assuming that this is the case (and that organizational unfairness is perceived rather than real), our research would seem to advocate the judicious use of self-affirmation techniques in organizational settings as a way to prevent or offset disruptive employee behavior and increase employee cohesion and morale.

Nevertheless, a cautionary remark is in order regarding the use or overuse of self-affirmation techniques. Self-affirmation effects are likely to be short-lived. More alarmingly, they may discourage employees from accepting critical or constructive managerial feedback that is likely to promote change in organizational behavior. In particular, self-affirmation may breed a practice of protecting self-worth rather than orienting behavior toward long-term improvement (Crocker & Park, 2004; Sedikides & Strube, 1997).
In the remainder of the chapter, we discuss the implications of our findings for theoretical models of procedural fairness and also explore future directions for empirical investigation.

**Self-Uncertainty versus General Uncertainty**

We argued that self-uncertain individuals rely disproportionately on procedural information as an uncertainty reduction strategy, and indeed demonstrated that these individuals manifest exaggerated affective, cognitive, and behavioral responses both to fair and unfair procedural information. Our findings align well with the uncertainty-management model (Van den Bos & Lind, 2002, Chapter 7), which posits that people use information about procedural fairness to manage their feelings of uncertainty.

Arguably, though, our theoretical framework can be distinguished from this model. We were exclusively concerned with an individual difference (i.e., high vs. low self-uncertainty), and with a specific type of uncertainty (i.e., uncertainty about the self). The uncertainty-management model, in contrast, has traditionally been concerned with general uncertainty. For example, research inspired by this model has manipulated various types of uncertainty (e.g., situational uncertainty, control, fear of death), making it somewhat difficult to decipher which type of uncertainty is directly implicated in responsiveness to procedural information. This is an issue that Van den Bos (2001b) recognized, when he stated that “all uncertainties are not the same and cannot be expected to have the same effects” (p. 940).

Recently, Van den Bos (2007; see also Van den Bos & Lind, Chapter 7) has articulated further the uncertainty-management model. In particular, he elaborated on the distinction between informational uncertainty and personal uncertainty. The former is defined as an insufficient amount of relevant facts while making a social judgment (Van den Bos, 2003, Experiments 2 and 3). The latter—also termed self-uncertainty—is defined as “a subjective sense of doubt or instability in self-views, world-views, or the interrelation between the two” (Van den Bos & Lind, Chapter 7, p. 124). Clearly, the latter definition (emphasized by Van den Bos) is more congruent with ours. Still this definition is broader than ours, as it incorporates world-views (i.e., uncertainty about the world) and their interplay with self-views. There is a need for future research to move into examining systematically the effects that different definitions of uncertainty have on reactions to procedural fairness, a need that Van den Bos and Lind (Chapter 7) also identified (p. 125). We have started doing so (De Cremer, Brebels, & Sedikides, 2007), and we describe the findings next.

**General Uncertainty versus Belongingness Uncertainty**

We (De Cremer et al., 2007, Study 1) manipulated general uncertainty versus belongingness uncertainty. We induced *general uncertainty* by asking participants to describe “the emotions that the thought of you being uncertain in general arouses in you.” We induced *belongingness uncertainty* by instructing participants to describe “the emotions that the thought of you being uncertain about whether you belong arouses in you.” Subsequently, we manipulated procedural fairness in terms of providing versus depriving participants of voice in organizational decision-making. The results were informative. Participants in the general uncertainty condition regarded the procedures as fairer when they received rather than were denied voice; however, participants in the belongingness uncertainty condition did not differ in their fairness assessments as a function of voice. On the other hand, belongingness uncertainty participants identified more strongly with their organizational uncertainty function.

In these first studies, the second-order criterion of belongingness uncertainty was referred to as “descriptive.” However, a more thorough investigation of the role of belongingness uncertainty might follow a different approach, considering, for example, the strength of belongingness uncertainty. There is a need for future research to move into examining systematically the effects of different definitions of uncertainty on reactions to procedural fairness, a need that Van den Bos and Lind (Chapter 7) also identified (p. 125). We have started doing so (De Cremer, Brebels, & Sedikides, 2007), and we describe the findings next.
organization when they received rather than were denied voice; however, general uncertainty participants did not differ in their strength of organizational identification as a function of voice.

In a follow-up study, we (De Cremer et al., 2007, Study 2) replicated and extended these findings. We wanted to know whether general versus specific belongingness uncertainty is responsible for the results of Study 1. Thus, we created three, instead of two, uncertainty conditions. The first was the general uncertainty condition, as in Study 1. The second was the stranger belongingness uncertainty condition. We instructed participants to "describe the emotions that the thought of you being uncertain about your sense of belongingness in a relationship with a stranger arouses in you." The third condition involved family belongingness uncertainty. We instructed participants to "describe the emotions that the thought of you being uncertain about your sense of belongingness in a relationship with a family member arouses in you." The procedural fairness manipulation followed, as in Study 1. The results were revealing. General uncertainty participants considered the procedures fairer when they received rather than were denied voice; however, this effect was absent in the two belongingness uncertainty conditions. Conversely, participants in the family belongingness uncertainty condition identified more strongly with their organization when they received rather than were denied voice; however, this effect was absent in the general uncertainty and stranger belongingness uncertainty conditions.

The De Cremer et al. (2007) findings demonstrate that different types of uncertainty account for different procedural fairness effects. General uncertainty is linked with rather broad judgments about fairness of procedures. Stranger belongingness may activate a global sense of belongingness, but this is not enough to color fairness or group identification judgments. Importantly, family belongingness might prime affiliative considerations, which in turn are reflected in expressions of identification with one’s group. These findings suggest that such a multi-faceted construct as uncertainty can influence different aspects of fairness-related judgments. It would be interesting to explore how these types of uncertainty correspond to different kinds of self-construal. It might be, for example, that general and stranger belongingness uncertainty are more relevant to an independent self-construal, whereas family belongingness uncertainty is more relevant to an interdependent self-construal (Poehlmann & Hannover, 2006).

**Implications for Procedural Fairness Models**

Interestingly, some of our findings (i.e., De Cremer & Sedikides, 2005) suggest boundaries on procedural fairness models. Variations in procedural fairness were inconsequential for self-certain persons: they were unperturbed. The obtained pattern qualifies somewhat the predictive scope of such theoretical models as the group-value model (Lind & Tyler, 1988), the relational model of authority (Tyler & Lind, 1992), the group-engagement model (Tyler & Blader, 2000), and the self-based model of cooperation (De Cremer & Tyler, 2005). These models may have more to say about self-uncertain than self-certain persons.

Of course, we do not wish to imply that procedural fairness will matter for only a specific group of people (i.e., self-uncertain individuals). In fact, our own data indicated that procedural fairness matters for all, as our participants displayed more negative affective, cognitive, and behavioral reactions to unfair rather than fair procedures (De Cremer & Sedikides, 2005). Rather, our point is that a certain group of individuals will capitalize more strongly on procedural information in order to reduce uncertainty about themselves. Such information will help self-uncertain individuals to decipher their popularity or social standing and, in the long run, to clarify better their self-concept.
Decomposing Self-Uncertainty in Terms of Selves

We might have focused on a single type of uncertainty (i.e., self-uncertainty), but still more detailed investigations are needed to pinpoint the locus of the obtained effects. What is the particular type of self-uncertainty that information about fair procedures soothes but information about unfair procedures exacerbates? There are at least three possibilities. To facilitate our discussion, we will distinguish among three types of self: individual, relational, and collective (Brewer & Gardner, 1996; Sedikides & Brewer, 2001). The individual self consists of attributes that make the person distinct from others. The relational self consists of attributes that the person shares with significant others. Finally, the collective self consists of attributes that the person shares with important groups.

It is possible that uncertainty about the individual self drives the obtained effects. This hypothesis can be tested empirically by examining the replicability of our findings with persons who have a strong, confident, and certain sense of individual self. Narcissists come readily to mind as an example (Rhodewalt & Morf, 2005; Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). Support for this hypothesis would be obtained if the reported findings (e.g., intensified responsiveness to variations in procedural information) are replicated in the case of low narcissists but are cancelled out in the case of high narcissists.

Similar procedures can be implemented to find out whether uncertainty about the relational self drives the obtained effects. For example, the hypothesis that the relational self underlies uncertainty would anticipate that our findings be replicated among persons with a strong interdependent self-construal (Cross, Bacon, & Morris, 2000) but cancelled out among persons with a weak interdependent self-construal. Consistent with this hypothesis, information about procedural fairness has a more pronounced influence (in terms of positive affect, cooperation, and desire for future interaction) among high rather than low interdependent self-construal participants (Brockner, De Cremer, Van den Bos, & Chen, 2005). Finally, similar procedures can be used to test if uncertainty about the collective selves drives the obtained effects. This hypothesis would be supported if our findings were replicated among persons high on collectivism (Singelis, 1994) but cancelled out among persons low on collectivism.

Interestingly, these ideas call for cross-cultural research. It has been argued that members of Eastern (e.g., Asian) cultures have a relatively interdependent orientation, whereas members of Western (e.g., American or Northern European) cultures have a relatively independent orientation (Markus & Kitayama, 1991; Triandis, 1989). In a sense, the former’s relational and collective selves are chronically activated, whereas the latter’s individual self is chronically activated. Should our findings be even stronger in the case of Eastern cultures, they would provide additional evidence for the relevance of the relational or collective (rather than the individual) self within responsiveness to procedural fairness variations.

Decomposing Self-Uncertainty in Terms of Constructs

There is another way to search for the locus of self-uncertainty. This would require a more fine-grained analysis, as it would be at the level of constructs rather than selves. Of course, constructs can be conceptualized as being embedded in the different levels of the self. For example, the constructs self-compassion (Neff, 2003), autonomy (Deci & Ryan, 2000), and self-control (Tangney, Baumeister, & Boone, 2004) pertain to the individual self. In contrast, the constructs social acceptance (Leary & Baumeister, 2000), respect (De Cremer, 2002), and social standing (Cropanzano, Byrne, Bobocel, & Rupp, 2001) refer to the individual or collective self.
Note that a “construct-level” analysis has implications for self-affirmation research. In our work, we did not assess mediators of the effect of self-affirmation on self-uncertain participants’ responsiveness. The mediating mechanism might be a surge in self-compassion, autonomy, or self-control; alternatively, the mediating mechanism may be heightened perceived social acceptance, respect, or social standing (Fein & Spencer, 1997; Kumashiro & Sedikides, 2005; McQueen & Klein, 2006). Thus, it is helpful to know which construct is involved in order to implement the corresponding self-affirmation manipulation. Such manipulations would work quite differently with different people, in different contexts, and with different cultures.

Moving from Self-Uncertainty to Organizational Membership Uncertainty

Although our research was concerned with individual differences in self-uncertainty, the findings have broader implications for organizational membership and, indirectly, organizations. Organizational members, for example, can be classified as high versus low on self-uncertainty, depending not on dispositional characteristics but rather on level of seniority (Kramer, 2001; Moreland & Levine, 2002). Newcomers will be uncertain, whereas established members will be certain, about themselves and their role in the organization. Our theoretical framework predicts that newcomers will exhibit more extreme responses both to provisions and deprivations of procedural fairness. Our framework also advocates the judicious use of self-affirmation techniques to relax newcomers’ responsiveness to information about procedural fairness.

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Organizational members differ on a variety of personality characteristics (Moreland & Levine, 2003). Our empirical efforts focused on one of them, self-uncertainty. Furthermore, we proposed and found that chronic differences in self-uncertainty moderate responses to information about procedural fairness. Self-certain persons reacted with relative equanimity to information about fair or unfair procedures, but self-uncertain persons reacted with intensity and extremity, showing magnified affective, cognitive, and behavioral responding. This level of responsiveness was presumably due to an effort by self-uncertain persons to reduce their insecurity and strengthen their tenuous self-beliefs. Indeed, when they had the opportunity to affirm themselves, self-uncertain persons reacted with equal equanimity to variation in procedural fairness as self-certain persons. We hope that our research provides the fodder for additional forays into the nature of self-uncertainty, the strategies involved in its reduction, and the benefits of these strategies for both individuals and organizations.

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