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Abstract

This article examined the differential role of self-rumination and self-reflection on the psychological influence of procedural fairness. Study 1 induced self-rumination and self-reflection relative to an outward-focused control. Self-rumination increased the perceived importance of procedural fairness, whereas self-reflection decreased it. Study 2, assessing individual differences in self-rumination and self-reflection, showed that a standard procedural fairness manipulation (voice vs. no voice) predicted future interaction preferences with the enactment source among those high (but not low) in self-rumination and among those low (but not high) in self-reflection. The findings validate a multiple process approach to understanding the role of the self in procedural fairness.

Keywords: procedural fairness, self, self-focus, self-rumination, self-reflection

Self-Focus and Procedural Fairness:

The Role of Self-Rumination and Self-Reflection

Procedural fairness, the perceived fairness of procedures enacted for outcome allocations, influences recipients' reactions even beyond instrumental considerations (Lind, Kanfer, & Earley, 1990; Lind & Tyler, 1988). This is partly because people derive self-relevant information from procedural fairness (Tyler & Lind, 1992; see also: Blader & Tyler, 2009; De Cremer & Sedikides, 2005; Sedikides, De Cremer, Hart, & Brebels, 2010; Tyler & Blader, 2000; Van den Bos & Lind, 2010). Indeed, the influence of procedural fairness varies along with situational or dispositional concerns for status, belongingness, esteem, and reputation (Brockner et al., 1998; Brebels, De Cremer, & Sedikides, 2008; De Cremer & Blader, 2005; De Cremer, Brebels, & Sedikides, 2008; De Cremer & Sedikides, 2008; Sedikides, Hart, & De Cremer, 2008; Tyler, Degoey, & Smith, 1996; Van Prooijen, Van den Bos, & Wilke, 2002). Yet, given the relevance of procedural fairness to the self, it is surprising that research has neglected the role of self-focus, that is, the propensity to focus attention inward (Fenigstein, Scheier, & Buss, 1975). Despite theoretical arguments and evidence that fairness concerns become more pressing when the self is salient (Skitka, 2003), no studies have examined the direct relation between self-focus and procedural fairness. The present investigation aims to address this gap in the literature.

One reason for the relative paucity of research on this topic may be that attempts to increase self-focus are not as straightforward as attempts to render the self salient. We argue, in accord with others (Trapnell & Campbell, 1999), that self-focus is not a unitary construct, but rather consists of two distinct orientations: self-rumination and self-reflection. In both cases, attentional focus is on the self; that is, the self is salient. However, self-rumination is motivated by anxiety and self-doubt, whereas self-reflection is motivated by epistemic interest in the self. The literature on self-focus and psychological adjustment/maladjustment has adopted a unitary conceptualization of self-focus and produced paradoxical results: Higher self-focus was associated with greater psychological maladjustment in some studies (Ingram, 1990), but with greater psychological adjustment in other studies (Nasby, 1985)—a phenomenon referred to as the self-absorption paradox (Trapnell & Campbell, 1999). These paradoxical results may be accounted for by self-rumination and self-reflection, respectively. The procedural fairness

literature has not distinguished between self-rumination and self-reflection. Here, we propose and test the idea that the two types of self-focus exert independent and opposing influences on the self-relevance of, and responsiveness toward, procedural fairness.

We engage in an examination of how the two self-focus types influence reactions to procedural fairness. Our starting point is that the self is a key mechanism in understanding effects of procedural fairness (De Cremer & Tyler, 2005; Sedikides et al., 2008; Van Prooijen et al., 2002). We demonstrate that (1) whereas self-rumination (vis a vis a control condition) increases the self-relevance of procedural fairness, self-reflection decreases it, and (2) self-rumination exacerbates the influence of fair versus unfair procedures on preference for future social interaction, whereas self-reflection attenuates or eliminates it. In doing so, we contribute empirically and theoretically to the burgeoning literature on boundary conditions to procedural fairness effects thus deepening scholarly understanding of why and when preference for fair over unfair procedures is reduced, jettisoned, or reversed (Brockner, Wiesenfeld, & Diekmann, 2009; Mayer, Greenbaum, Kuenzi, & Shteynberg, 2009). We begin by discussing how the dual nature of self-focus may differentially influence reactions to procedural fairness.

Reactions to Procedural Fairness as a Function of the Dual Nature of Self-Focus

Self-focus has attracted sustained empirical interest (Green, Sedikides, Saltzberg, Wood, & Forzano, 2003; Fenigstein, 2009; Iyer, Leach, & Crosby, 2003; Sedikides, 1992; Silvia & Duval, 2001). One reason for this interest has been seemingly puzzling findings such as: Higher scores on the private self-consciousness scale (the most established operationalization of self-focus at the dispositional level; Fenigstein et al., 1975) are associated with negative cognitions about the self, but also with better articulated self-knowledge (Creed & Funder, 1998; for a review, see Silvia & Gendolla, 2011). Particularly relevant to the current investigation are paradoxical findings pertaining to the relation between private self-consciousness and reactions to social feedback. A portion of the literature has showed that individuals higher on private self-consciousness perceive social feedback as more self-relevant and are influenced more by it (Hull & Levy, 1979; Hull & Young, 1983). Another part of the literature, however, has yielded the opposite results pattern: individuals higher on private self-consciousness disregard social influences on their behavior and prefer regulating themselves based upon awareness of their

inner states (Gibbons, 1983; Scheier, Buss, & Buss, 1978). Thus, early research indicated that higher private self-consciousness is associated both with increases and decreases in reactions to social feedback.

Trapnell and Campbell (1999) suggested that motivational confounds associated with responses to the private self-consciousness scale are responsible for these paradoxical findings. They demonstrated that scale items can be interpreted in motivationally distinct ways. For example, "I'm always trying to figure myself out" – a typical item of the private self-consciousness scale – can be interpreted either as "I am always ruminating over or second guessing myself" or as "I love exploring my inner thoughts." Both refer to an orientation to direct attention inward, but the former entails anxiety and doubt about the self (*self-rumination*), whereas the latter entails a genuine epistemic interest in the self (*self-reflection*). Trapnell and Campbell validated self-rumination and self-reflection as distinct mechanisms underlying responses to the private self-consciousness scale. Stated otherwise, each mechanism is associated with separate antecedents and consequences. Notably, each bears a unique relation not only with the private self-consciousness scale and known correlates of it, but also with Big 5 personality traits. Self-rumination is characterized by a sense that one's feelings and thoughts are confusing, by a repetitive focus on the causes and consequences of distress, by neuroticism, and, in general, by *self-evaluative concerns*. In contrast, self-reflection is characterized by a sense that one's feelings and thoughts are clear, by a desire to distract oneself from over-analyzing feelings and thoughts, by openness to experience, and, in general, by *self-curiosity concerns* (Kross, Ayduk, & Mischel, 2005; McFarland, Buehler, von Rüti, Nguyen, & Alvaro, 2007; Segerstrom, Stanton, Alden, & Shortridge, 2003; Teasdale & Green, 2004).

The literature on the distinction between self-rumination and self-reflection has focused mainly on intrapersonal rather than interpersonal consequences. No studies have examined whether this distinction accounts for the above-mentioned paradoxical findings that individuals higher on private self-consciousness sometimes react more strongly (Hull & Levy, 1979; Hull & Young, 1983) and other times more weakly (Gibbons, 1983; Scheier, Buss, & Buss, 1978) to social feedback. As mentioned earlier, one kind of social feedback that is particularly influential in organizational settings is information about the fairness of enacted procedures (Brockner et

al., 1998; Sedikides et al., 2008; Tyler & Lind, 1992). Thus, examining reactions to procedural fairness as a function of the two self-focus types promises to inform, not only about the dual role of the self in procedural fairness, but also about the interpersonal consequences of self-rumination and self-reflection. We approach these constructs both as malleable states and stable dispositions. Further, we propose that the state and trait forms of self-rumination and self-reflection will evoke parallel psychological consequences.

Self-Rumination and Self-Reflection in Procedural Fairness

The procedural fairness literature has not distinguished between types of self-focus. Theoretical propositions and empirical findings have pointed to fairness concerns becoming more pressing when the self or a self-aspect is salient (Skitka, 2003). We move this literature forward by arguing that the extent to which people rely on procedural fairness to regulate their attitudes and behaviors depends, in part, on the type of self-focus in which they engage. Specifically, as we discussed above, self-focus exerts different effects depending on whether it is motivated by anxiety and self-doubt (self-rumination) or by epistemic interest in the self (self-curiosity). We elaborate next on how these two self-focus types may have opposing influences on the perceived importance of, and responsiveness to, procedural fairness.

People use procedural fairness for self-evaluation purposes (Tyler & Lind, 1992; Sedikides et al., 2008; Van den Bos & Lind, 2010). In the first test of this idea, students' state self-esteem dropped following an unfair (relative to fair) grading procedure of a test considered indicative of their academic skills (Koper, Van Knippenberg, Bouhuijs, Vermunt, & Wilke, 1993). The authors interpreted these results as showing that people evaluate themselves based not only on self-perception (Bem, 1972), but also on how they think others judge them (i.e., the 'Looking glass self;' Cooley, 1912). Thus, students based their self-evaluations on the perceived fairness of the enacted procedure (i.e., test grading). This reasoning is consistent with perspectives advocating that interpersonal appraisals reflect on, and can change, one's self-image or self-esteem (Leary, 2012; Wallace & Tice, 2012). We maintain that the influence of procedural fairness may operate through reflected appraisal processes, but the extent to which people rely on procedural fairness to regulate their attitudes and behaviors is contingent upon type of self-focus.

Self-Rumination Exacerbates Responses to Procedural Fairness

Inward-focused attention that is motivated by anxiety of what one might discover about the self (i.e., self-rumination) invokes relatively high levels of self-referential thinking (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). This includes considering others' actions and decisions (e.g., procedural fairness) as diagnostic of the kind of person one is. A self-ruminative state, then, will be highly susceptible to information—including procedural fairness—that has implications for the self. We hypothesize that temporal increases in self-rumination will render procedural fairness more important to the self (*Hypothesis 1a*).

Self-rumination involves compulsive attending to perceived losses, threats, and injustices pertaining to the self (Trapnell & Campbell, 1999). Indeed, self-rumination increases negative affect and decreases positive affect (Mor & Winquist, 2002; Teasdale & Green, 2003). Further, self-rumination elicits low self-clarity (Trapnell & Campbell, 1996) and high self-uncertainty (Ward, Lyubomirsky, Sousa, & Nolen-Hoeksema, 2003). Self-uncertainty breeds the unpleasant sentiment that one's life lacks purpose, direction, and meaning (Routledge et al., 2011; Sedikides et al., 2010; Van den Bos, 2009). In all, self-rumination is associated with an aversively experienced state of self-uncertainty. As such, self-rumination may precipitate efforts to reduce self-uncertainty, and an effective way to do so is by capitalizing on procedural fairness.

People do use procedural fairness to reduce their uncertainty. Fair (vs. unfair) procedures reduce *general uncertainty* by instilling a sense that the world is fair and, specifically, that one's organization constitutes a stable, orderly, and predictable environment (Lind & Van den Bos, 2002; Van den Bos, 2001; Van den Bos & Lind, 2002; Van den Bos & Miedema, 2000). Fair (vs. unfair) procedures also reduce *self-uncertainty* by signaling that one is a valued and respected member of their organization; this realization in turn contributes to a positive evaluation of oneself and one's relationships (Blader & Tyler, 2009; De Cremer & Sedikides, 2005; De Cremer & Tyler, 2005; Tyler & Blader, 2003; Tyler & Lind, 1992). Both perspectives on uncertainty reduction via procedural fairness are congruent with the idea that self-rumination would exacerbate responsiveness toward procedural fairness. Conditions of general uncertainty (e.g., uncertainty salience—Van den Bos, 2001; mortality salience—Van den Bos & Miedema, 2000; unfavorable outcomes—Brockner & Wiesenfeld, 1996) augment reactions to procedural

fairness. Likewise, procedural fairness impacts more strongly among persons high than low on personal uncertainty (e.g., dispositional self-uncertainty— De Cremer & Sedikides, 2005; concern for reputation—De Cremer & Sedikides, 2008; belongingness needs—De Cremer & Blader, 2006). Thus, based on our reasoning that self-rumination motivates people to reduce self-uncertainty and on the abovementioned empirical support for the self-uncertainty reducing properties of procedural fairness, we hypothesize that responsiveness to procedural fairness will be exacerbated among those high (but not low) in self-rumination (*Hypothesis 2a*).

Self-Reflection Attenuates Responses to Procedural Fairness

Inward-focused attention that is motivated by curiosity about what one might discover about the self (i.e., self-reflection) aligns with theoretical perspectives emphasizing the benefits of psychological growth and self-expansion (Erikson, 1963; Maslow, 1970) as well as of self-improvement strivings (Gaertner, Sedikides, & Cai, 2012; Sedikides & Hepper, 2009). Self-reflectors direct attention inward in an effort to advance self-insight. Importantly, however, they do so for brief temporal periods rather than repetitively, and they prefer feedback that provides novel self-information rather than pondering over and re-analyzing feelings and thoughts (Segerstrom et al., 2003). In particular, self-reflection is characterized by a non-evaluative epistemic style (Trapnell & Campbell, 1999). Thus, self-reflection may lead to a relative disregard of procedural fairness, given that it does not add to epistemic interests and possibly even interferes with them. Based upon this reasoning, we hypothesize that temporal increases in self-reflection will render procedural fairness less important to the self (*Hypothesis 1b*).

In addition, self-reflection involves playful exploration of novel, unique, or alternative self-perceptions; indeed, self-reflection is positively correlated with need for cognition and is negatively correlated with authoritarianism (Trapnell & Campbell, 1999). Self-reflectors enjoy or become inspired by taking the perspective of others as an alternative self-examination source (Joireman, Parrot, & Hammersla, 2002), while looking for ways to reinterpret or sometimes endorse seemingly threatening feedback (McFarland et al., 2007; Sedikides, 2012). Self-reflectors, then, may seek to maintain or temporarily increase self-uncertainty, as this state promises to culminate in an improved understanding of the self (Sedikides & Hepper, 2009;

Sedikides, 2012). This possibility suggests that self-reflection attenuates the influence (i.e., responsiveness to) of procedural fairness.

There is some evidence in the literature that states purported to function in a similar manner to self-reflection weaken responsiveness to procedural information. Self-affirmation is an example. Self-affirmation (e.g., re-endorsement of one's core values) bolsters a sense of self-integrity and self-coherence, which makes it easier to be objective about self-threatening information and reduces the pressure to diminish the threat (Sherman & Cohen, 2006; Sherman & Hartson, 2011). Wiesenfeld, Brockner, and Martin (1999; see also: De Cremer & Sedikides, 2005, Experiment 6; Van den Bos, 2001, Experiment 2) reported that survivors of an organizational downsizing reacted less negatively to unfair procedures following self-affirmation. Importantly, this effect was stronger among participants higher on private self-consciousness. This finding is consistent with the idea that high dispositional self-focus combined with an orientation toward important values of the self-system (i.e., self-reflection) diminishes responsiveness toward procedural fairness.

In all, based on our reasoning that self-reflection motivates people to maintain or even increase self-uncertainty and on relevant empirical evidence, we hypothesize that responsiveness to procedural fairness (in the form of social interaction preferences – see below) will be attenuated among those high, but not low, in self-reflection (*Hypothesis 2b*).

Overview

We report two studies. We test *Hypothesis 1a* and *Hypothesis 1b* in Study 1. Specifically, we induce self-rumination and self-reflection (relative to an outward-focused control condition) and then assess the perceived importance of procedural fairness to the self. We test *Hypothesis 2a* and *Hypothesis 2b* in Study 2. Specifically, we assess dispositional self-rumination and self-reflection. Subsequently, we introduce a standard procedural fairness manipulation (i.e., being granted or denied an opportunity to voice one's opinion in a leader emergence decision-making procedure) and assess desire for future interaction with the enactment source of the organizational procedures.

Study 1

Study 1 constituted our preliminary foray into the relation between self-focus type (self-rumination vs. self-reflection) and procedural fairness. We manipulated the former and assessed the latter in the form of perceived importance of fairness information. As stated above, this study tested *Hypotheses 1a* and *1b*.

Method

Participants and design. Fifty six undergraduate students (44 female, 12 male; M_{age} = 19.34, SD_{age} = 1.71) at Tilburg University, The Netherlands, participated voluntarily in exchange for partial course credit. The experiment involved a one-factor (self-focus: control, self-rumination, self-reflection) between-subjects design, with random allocation to conditions.

Experimental procedure and measures. Participants were tested in separate cubicles. Those in the *control* condition were instructed to bring to mind and describe a regular chair and its attributes. Those in the *self-rumination* condition were instructed to bring to mind and describe a situation in which they experienced the following: "You are in a state in which things you did or said in a previous situation keep brooding in your head. Not only do you think over and over again about how you behaved in that situation, but you also find yourself re-examining the things you did or said. Even though you'd rather drift away from these unwanted thoughts about yourself, you are failing to get rid of them." Finally, participants in the *self-reflection* condition were instructed to bring to mind and describe a situation in which they experienced the following: "You are in a state in which you take a philosophical stance at yourself. You are curious about yourself and rather fascinated by your own thoughts and beliefs. Being in this philosophical mode, you carefully examine why exactly you do things the way you do them. This brings you closer to a clearer glimpse into your 'inner' self." We adapted the self-rumination and self-reflection instructions from the relevant subscales of Trapnell and Campbell's (1999) scale.

We next proceeded with the manipulation check. We instructed participants to respond to two negative affect and two positive affect adjectives (1 = *not at all*, 9 = *very much so*) taken from the Positive And Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). In the case of negative affect, we asked participants: "Right now, to what extent do you feel distressed/irritable" (r = .49, M = 3.15, SD = 1.99). In the case of positive affect, we asked

participants: "Right now, to what extent do you feel interested/excited" ($r = .52$, $M = 4.76$, $SD = 1.84$). We will refer to these measures as negative affect and positive affect index, respectively. Prior research has shown that self-rumination is related to increased negative affect and decreased positive affect, whereas self-reflection is unrelated to type of affect (Mor & Winquist, 2002; Teasdale & Green, 2004). It is for these reasons that we implemented negative and positive affect measures as a manipulation check of self-rumination and self-reflection.

We proceeded with the assessment of the dependent variable, namely self-relevance of procedural fairness information. We asked participants to indicate (1 = *not at all important / not at all difficult for me*, 9 = *extremely important / extremely difficult for me*) how important it is to them that things happening to them be due to a fair process, how important it is to them to express their ideas and feelings before decisions are made, how difficult it is to them to not be able to influence a decision-making process, how difficult it is to them when decisions are based upon different grounds for them than for others and, finally, how difficult it is to them when decisions are based on an isolated aspect of their overall performance. We constructed these five items on the basis of traditional procedural fairness measures and procedural fairness rules that are frequently used to manipulate procedural fairness (e.g., voice, accuracy, consistency) (Colquitt, 2001; Leventhal, 1980; Tyler, 1988). We combined the items into the *self-importance of procedural fairness* index ($\alpha = .70$, $M = 6.67$, $SD = 1.02$).

Results

Manipulation check: positive and negative affect. A one-way Analysis of Variance (ANOVA) on the negative affect index did not yield a significant self-focus main effect, $F(2, 53) = 2.23$, $p = .11$, $\eta^2 = .08$. Nevertheless, exploratory analytical comparisons (i.e., Least Significant Differences, or LSD, tests) indicated that participants in the self-rumination condition ($M = 3.58$, $SD = 2.16$) reported more negative affect than those in the control condition ($M = 2.37$, $SD = 1.69$), $p < .05$. Furthermore, participants in the self-reflection condition ($M = 2.69$, $SD = 1.57$) did not differ from participants in the control condition on reported positive affect, $p > .59$.

A one-way ANOVA on the positive affect index produced a significant self-focus main effect, $F(2, 53) = 3.73$, $p < .05$, $\eta^2 = .12$. LSD tests indicated that participants in the self-rumination condition ($M = 3.95$, $SD = 1.78$) reported lower positive affect than those in the

control condition ($M = 5.50$, $SD = 1.96$), $p < .01$. Furthermore, participants in the self-reflection condition ($M = 4.83$, $SD = 1.49$) did not differ from those in the control condition on reported positive affect, $p > .25$.

The weak evidence for negative affect notwithstanding, the results for both types of affect are consistent with prior findings on the affective consequences of self-rumination and self-reflection (Mor & Winquist, 2002; Teasdale & Green, 2004). As such, we conclude in favor of the effectiveness of the self-focus manipulation.

Self-importance of procedural fairness. An ANOVA on the self-importance of procedural fairness index, with self-focus, gender, and age as independent variables, produced a self-focus main effect only, $F(2, 51) = 8.33$, $p = .001$, $\eta^2 = .25$. LSD tests indicated that self-rumination ($M = 7.28$, $SD = .92$) led to higher self-importance of procedural fairness than self-reflection ($M = 6.04$, $SD = .91$), $p < .001$, CI 95% [LL CI = .65; UL CI = 1.83]. More important, self-rumination exacerbated, $p < .05$, CI 95% [LL CI = -1.23; UL CI = -.06], whereas self-reflection attenuated, $p < .05$, CI 95% [LL CI = .01; UL CI = 1.19], the self-importance of procedural fairness relative to control ($M = 6.64$, $SD = .86$).

Study 2

The results of Study 1 showed that self-rumination increases, but self-reflection decreases, the perceived self-importance of procedural fairness. Study 2 provided a test for *Hypotheses 2a* and *2b*. We asked whether the two types of self-focus have opposite *moderating* effects on reactions toward actual procedural fairness feedback in an ongoing social interaction (i.e., being granted vs. denied voice). In particular, we examined future interaction preferences with the enactment source as a function of procedural fairness. Such preferences represent an index of participants' cooperative orientation (De Cremer & Tyler, 2005). Also, whereas Study 1 conceptualized and operationalized self-focus as a state (i.e., experimentally induced), Study 2 conceptualized and operationalized self-focus as a dispositional trait (i.e., assessed as an individual difference; Trapnell & Campbell, 1999).

Method

Participants and design. Ninety two undergraduate business administration students (48 male, 44 female; $M_{age} = 21.16$ years, $SD_{age} = 1.75$) from the Rotterdam School of Management,

The Netherlands, participated voluntarily in exchange for course credit. We assessed dispositional self-rumination and self-reflection, and then manipulated procedural fairness by randomly allocating participants to either a voice or no-voice condition.

Experimental procedure. Upon arrival in groups of 4-12, participants were guided to separate cubicles, each containing computer equipment and a chair. First, they completed a series of personality scales (1 = *not at all characteristic of me*, 9 = *extremely characteristic of me*). Interspersed among these scales were the 12-item self-rumination scale (e.g., "I often reflect on episodes in my life that I should no longer concern myself with;" $\alpha = .80$, $M = 3.70$, $SD = .87$) and the 12-item self-reflection scale (e.g., "I love exploring my inner thoughts;" $\alpha = .89$, $M = 4.10$, $SD = .98$). As in Trapnell & Campbell (1999), the two self-focus types were positively correlated, $r(93) = .39$, $p < .001$.

Next, participants were informed that they would engage in a group discussion session regarding student issues at the university campus. They also learned that another student (i.e., Student 2) was assigned to appoint someone to lead the discussion. In reality, there was no Student 2.

Participants then received a brief message, allegedly from Student 2. This constituted the manipulation. In the *voice* condition, the message was: "I am working on an assignment to determine who will be appointed to lead the group discussion. I would like to hear from you why you think you do or do not qualify as a good discussion leader. So, could you please indicate this in a few lines?" In the *no-voice* condition, the message was: "I am working on an assignment to determine who will be appointed to lead the group discussion. In doing so, I do not think it is necessary to hear from you why you think you do or do not qualify as a good discussion leader. So, I will not ask you to indicate this." Subsequently, participants in the (no) voice condition were (not) given the opportunity to describe their qualification as a discussion leader.

Subsequently, we assessed the effectiveness of the voice manipulation by asking: "To what extent were you given an opportunity to indicate why you should or should not be the leader?" (1 = *not at all*, 7 = *very much so*). Additionally, we checked whether the voice manipulation changed perceptions of procedural fairness by asking participants how fair (1 = *very unfair*, 7 = *very fair*) and how just (1 = *very unjust*, 7 = *very just*) they considered the way

they were treated. We average responses into a perceived procedural fairness index ($\alpha = .91$, $M = 3.55$, $SD = 1.60$). Finally, we collected the dependent measure (i.e., desire for future social interaction) by asking participants: "To what extent do you want to work with Student 2 on the next task after the discussion?" (1 = *not at all*, 7 = *very much so*).

Results and Discussion

In all analyses, we used centered scores for the main effects, and we based interactions terms upon the product of these centered scores.

Manipulation check. A hierarchical regression analysis on the manipulation check produced a procedural fairness main effect: Participants in the voice condition ($M = 5.40$, $SD = 1.18$) reported more opportunities to voice their opinion on why they should or should not emerge as the leader compared to those in the no-voice condition ($M = 1.28$, $SD = .91$), $\beta = .89$, $p < .001$, $f^2 = .79$. No other effects were significant, $p_s > .21$.

We conducted a second hierarchical regression analysis on the perceived procedural fairness index. Again, this analysis yielded a procedural fairness main effect only: Participants in the voice condition ($M = 4.46$, $SD = 1.15$) perceived to be treated more fairly and justly than those in the no-voice condition ($M = 2.48$, $SD = 1.39$), $\beta = .63$, $p < .001$, $f^2 = .39$. No other effects were significant, $p_s > .10$. The procedural fairness manipulation was effective.

Desire for future interaction. A hierarchical regression analysis (Table 1) on desire for future interaction resulted in a procedural fairness main effect, $\beta = .27$, $p < .01$, $f^2 = .07$: Participants who were granted voice ($M = 4.82$, $SD = 1.02$) expressed greater desire to work with the enactment source on a subsequent task than those who were denied voice ($M = 4.07$, $SD = 1.52$).

Crucially, the procedural fairness main effect was qualified by significant interactions with self-focus. First, a significant procedural fairness x self-rumination interaction emerged, $\beta = .35$, $p < .01$, $f^2 = .10$ (Figure 1): Voice predicted future interaction preferences among those high in self-rumination, $\beta = .62$, $p < .001$, $f^2 = .17$, but not among those low in self-rumination, $\beta = -.09$, $p > .59$, $f^2 = .00$. Second, a significant procedural fairness x self-reflection interaction emerged, $\beta = -.23$, $p < .05$, $f^2 = .05$ (Figure 2): Voice did not predict future interaction

preferences among those high in self-reflection, $\beta = .02$, $p > .92$, $f^2 = .00$, but it did so among those low in self-reflection, $\beta = .50$, $p = .001$, $f^2 = .12$. No other effects were significant, $ps > .50$.

General Discussion

The findings support the idea that two constituents of self-focus – self-rumination and self-reflection – have different effects or associations with procedural fairness. Although a ruminative focus on the self *exacerbated* the self-relevance of, and responsiveness toward, procedural fairness, a reflective focus on the self *attenuated* them. Put otherwise, self-rumination and self-reflection exerted independent and simultaneous effects on procedural fairness. These result patterns emerged regardless of whether self-rumination and self-reflection were induced temporarily or assessed dispositionally.

Our investigation contributes to the procedural fairness literature in several ways. To begin with, our investigation is the first to distinguish between types of self-focus. Building on the relation between procedural fairness and the self (Sedikides et al., 2008; Skitka, 2003; Tyler & Lind, 1992; Van den Bos & Lind, 2009) and on the self-focus literature (Fenigstein, 2009; McFarland et al., 2007; Segerstrom et al., 2003; Trapnell & Campbell, 1999), we demonstrated that the extent to which people rely on procedural fairness to regulate their attitudes and behavioral inclinations depends, at least in part, on the type of self-focus in which they engage.

The finding that self-rumination exacerbates, whereas self-reflection attenuates, the influence of procedural fairness has the potential to clarify recent contradictory results. Some studies reported that a focus on the 'I' – also referred to as personal self, individual self, or independent self-construal (Gaertner et al., 2012) – increased responsiveness toward variations in procedural fairness (Brebels et al., 2008; Van den Bos, Miedema, Vermunt, & Zwenk, 2011; Van Prooijen & Zwenk, 2009), whereas other studies reported that such a focus decreased responsiveness to it (Bobocell & Holmval, 2008; Brebels, De Cremer, & van Dijke, in press; van Dijke, De Cremer, Mayer, & Van Quaquebeke, 2012). From the perspective of the present investigation, subtle cues may have directed participants toward a self-ruminative or self-reflective orientation, respectively. More generally, our investigation adds to the growing literature on conditions that weaken, abolish, or reverse the influence of procedural fairness (Brockner et al., 2009; Desai, Sondak, & Diekmann, 2011; Mayer et al., 2009).

The current findings are consistent with (self-)uncertainty management explanations of procedural fairness effects (De Cremer & Sedikides, 2005; Van den Bos, 2001; Van den Bos & Lind, 2002). Interpretation of results relevant both to self-rumination and self-reflection can be couched in terms of the minimizing influence of procedural fairness on general or personal uncertainty. Original versions of uncertainty management theory assumed a generalized aversion to uncertainty and an ensuing motivation to decrease it (e.g., by means of procedural fairness; Van den Bos, 2001; Van den Bos & Lind, 2002). More recently, Van den Bos (2009) acknowledged that "experiencing uncertainty may sometimes be sought out and occasionally may instigate contemplation" (p. 198). In agreement, De Cremer and Sedikides (2009) called for a better integration of uncertainty seeking into the uncertainty management model. Relatedly, Desai et al. (2011) drew on individual differences in risk aversion/risk seeking to examine the relation between uncertainty reduction and procedural fairness. Across three studies, procedural fairness-based uncertainty reduction had a positive influence on job satisfaction and performance among risk-averse individuals, but a far less positive, if not negative, influence on them among risk-seeking individuals. Our work further contributes to this literature by establishing self-rumination and self-reflection as another class of moderators of the psychological influence of procedural fairness.

Research on the link between the self and procedural fairness has concentrated on facilitating rather than on specifying boundary conditions to procedural fairness effects. Only recently has this research started to identify (self-related) boundary conditions to the effects of procedural fairness. This empirical wave indicates that the impact of procedural fairness is reduced when decision outcomes violate central aspect of one's identity or strong moral convictions (Mayer et al., 2009; Skitka & Mullen, 2002, 2008). Yet, other work suggests that procedural fairness matters even when decision outcomes go against strongly held convictions (Napier & Tyler, 2008). The current investigation adds to this literature by demonstrating that, even in the absence of information about decision outcomes, the influence of procedural fairness on cooperative intentions is diminished when people focus on the self in a reflective manner (i.e., when they have an epistemic interest in the self). Moreover, this reduced effect may emerge

because high self-reflection renders procedural fairness information less self-relevant, which in turn decreases its relevance as a guide to behavior.

The findings also inform prior work on the distinction between self-rumination and self-reflection. Cross-sectional evidence showed that self-reflection was positively associated with both empathic concern and perspective taking, whereas self-rumination was negatively related to perspective taking and unrelated to empathic concern (Joireman et al., 2002). These relations appeared to be independent of self-esteem level. Our findings can clarify this picture. They suggest that self-reflection entails focusing on the self by including others' perspective into the self, whereas self-rumination entails the lack of resources to do that. Such a view is congruent with arguments that responsiveness toward procedural fairness depends on egocentric rather than prosocial motives (Van Prooijen et al., 2008). Moreover, the view is congruent with the self-based model of procedural fairness (De Cremer & Tyler, 2005): Fair procedures transform an individual's motives from the personal level to more inclusive levels of self-construal. It follows that a more inclusive focus on the self (e.g., self-reflection) is influenced less by variations in procedural fairness.

In closing, two studies demonstrated that self-focus can either increase (i.e., self-rumination) or decrease (i.e., self-reflection) the psychological impact of procedural fairness. Results validate a multiple process approach to understanding the role of the self in procedural fairness and invite future empirical efforts to explore further the relation between procedural fairness and the self.

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Table 1

Standardized Regression Coefficients for the Hierarchal Regression of Gender, Age, Voice, Self-rumination, and Self-reflection on Interaction Preferences in Experiment 2

Predictor	β		t(df res)
Step 1			t(86)
gender	-.01		-.11
age	-.06		-.53
voice	.27		2.62**
self-rumination	.00		-.02
self-reflection	.08		.68
R^2		.09	
Step 2			t(83)
voice x self-rumination	.35		3.09**
voice x self-reflection	-.23		-2.14*
self-rumination x self-reflection	.03		.25
ΔR^2		.10	
Step 3			t(82)
voice x self-rumination x self-reflection	-.03		-.30
ΔR^2		.00	

$^*p < .05$; $^{**}p < .01$ $^{***}p < .001$

Figure Captions

Figure 1. Desire for future interaction as a function of voice and self-rumination in Experiment 2.

Figure 2. Desire for future interaction as a function of voice and self-reflection in Experiment 2.
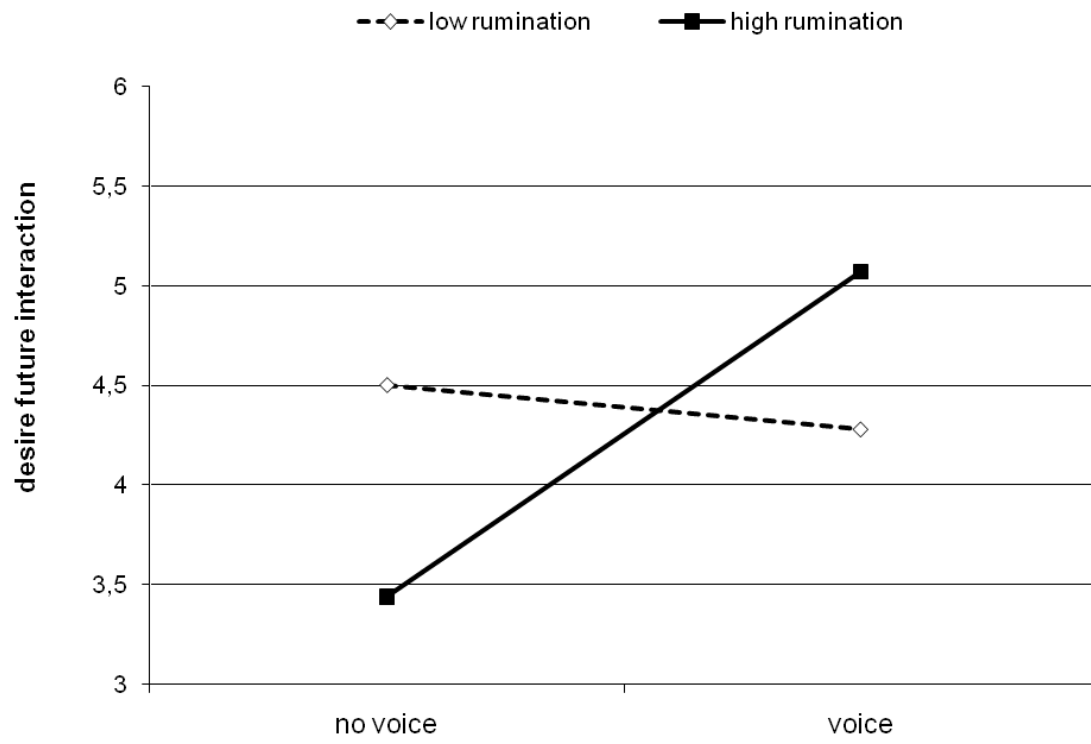
Figure 1

Figure 2