

## An affective-experiential perspective on reactions to fair and unfair events: individual differences in affect intensity moderated by experiential mindsets

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## Accepted Manuscript

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Individual Differences in Affect Intensity Moderated by Experiential Mindsets

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Running head: AFFECTIVE-EXPERIENTIAL MINDSETS AND FAIRNESS REACTIONS

An Affective-Experiential Perspective on Reactions to Fair and Unfair Events:

Individual Differences in Affect Intensity Moderated by Experiential Mindsets

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## Abstract

The present paper focuses on what psychological processes are driving people's reactions to fair and unfair events. Specifically, by extending on ideas that people's reactions to fair and unfair events consist at least partly of affect-related responses, and by adopting the assumption made in cognitive-experiential self-theory that the operation of experiential mindsets is intimately associated with affect-related experiences, we formulate the hypothesis that individual differences in affect intensity will moderate reactions to fair and unfair events. Introducing a novel manipulation of experiential and rationalistic mindsets to the research literature, the findings of two studies indeed reveal that especially for people in experiential (vs. rationalistic) mindsets negative affective reactions to fair and unfair events increase with high (vs. low) scores on affect intensity. Implications for the literature on social justice, experiential mindsets, and affect intensity are discussed.

Keywords: fairness, justice, experiential and rationalistic mindsets, affect intensity, dual processes

An Affective-Experiential Perspective on Reactions to Fair and Unfair Events:

Individual Differences in Affect Intensity Moderated by Experiential Mindsets

Perceived fairness strongly influences people's behaviors, attitudes, and feelings in organizations, courtrooms, universities, friendships, and romantic relationships (see, e.g., Brockner & Wiesenfeld, 1996; Folger & Cropanzano, 1998; Lind & Tyler, 1988; Tyler, Boeckmann, Smith, & Huo, 1997; Van den Bos & Lind, 2002). It has been shown for example, that experiencing fair outcome allocations (distributive fairness) or fair treatment (procedural fairness) during the allocation of outcomes leads people to experience more positive emotional feelings and that experiencing unfair outcome allocations and unfair procedures leads people to feel more angry and sad about the events that happened to them (e.g., Lind & Tyler, 1988; Weiss, Suckow, & Cropanzano, 1999). Despite the attention fairness reactions receive in the literature, there is still relatively little known about what psychological processes exactly drive people's reactions to fairness judgments (Lind, 2002; Van den Bos & Lind, 2002).

In the literature on justice and morality, two main mechanisms are proposed that could underlie reactions to fair and unfair events (Beauchamp, 2001). Social intuitionist notions propose that people react to fairness-related events based on their intuitions and gut feelings (Haidt, 2001, 2003; Haidt, Koller, & Dias, 1993). In contrast, rationalistic models (e.g., Pizarro & Bloom, 2003) argue that fairness reactions are actually shaped and formed by deliberative or rationalistic reasoning processes, and that people's affective reactions to a situation largely depend on the cognitive appraisal of the situation and the surrounding context (e.g., Ellsworth & Smith, 1988; Krehbiel & Cropanzano, 2000; Weiss et al., 1999). More generally, many dual process theories recognize that both affective-experiential and cognitive-rational processes underlie people's reactions, and suggest that which mechanism gets the upper hand depends from situation to situation and person to person (e.g., Chaiken &

Trope, 1999; Epstein, 1985, 1994; Epstein & Pacini, 1999; Shweder & Haidt, 1993; Smith & DeCoster, 2000; Strack & Deutsch, 2004).

In the current paper we aim to investigate how such situational and individual factors may impinge on people's reactions to fair and unfair events. More specifically, we will put forward an affective-experiential perspective on how people react to fair and unfair events. In developing this perspective, we integrate insights from different conceptual frameworks and corresponding lines of research, namely cognitive-experiential self-theory (e.g., Epstein, 1985, 1994) and work on individual differences in affect intensity (Larsen, Diener, & Emmons, 1986; Van den Bos, Maas, Waldring, & Semin, 2003).

#### Affective-Experiential Fairness Reactions

In correspondence with different lines of research that argue that people can process information either more intuitively or more rationally (Chaiken & Trope, 1999; Epstein, Lipson, Holstein, & Huh, 1992, Lerner & Goldberg, 1999; Shweder & Haidt, 1993; Smith & DeCoster, 2000; Strack & Deutsch, 2004), cognitive-experiential self-theory (Epstein, 1985, 1994; Epstein & Pacini, 1999) distinguishes between two conceptual systems that people use to process information, namely experiential-intuitive and rationalistic-cognitive systems. The experiential way of processing information is intuitive, preconsciously encodes information into concrete images or metaphors, and makes associative connections. In experiential modes, events are experienced passively, and people can be seized by their emotions. The rationalistic way of processing information, on the other hand, is analytic, encodes information in abstract ways, is based on making logical cause and effect connections, and requires intentional and effortful information processes. In rationalistic modes, people experience events consciously and actively while thinking things over and making justifications for what happens.

Research on work on individual differences in affect intensity has shown that people differ consistently in the intensity of their affective responses to the same event (Larsen,

Diener, & Cropanzano, 1987; Larsen et al., 1986). That is, some consistently may experience mild emotional responses whereas others may experience strong emotional responses when exposed to the same affect-related events. These findings are relevant to justice research as it has been shown that people's reactions to similar fair and unfair events may differ due to individual differences in affect intensity (Van den Bos et al. 2003). More precisely, Van den Bos et al. (2003) found that for those high in affect intensity affective reactions were more negative following either unfair outcome distributions or procedures as opposed to fair outcome distributions or procedures. For people low in affect intensity such effects were not found. These results suggest that individual differences play a profound role in explaining people's fairness reactions and may imply that fairness reactions are to a great extent based on affective processes.

#### The Current Research

Based on the literature outlined above, there have been speculations in the justice literature on the importance of experiential and rationalistic mindsets (e.g., Lerner & Goldberg, 1999), yet no strong empirical tests of the influence of these mindsets on people's fairness reactions. To examine the influence of these mindsets, we will bring people in either experiential or rationalistic mindsets. To this end, we developed a manipulation that varies the mindsets (experiential or rationalistic) people are in, such that people react more based on their gut feelings when in experiential mindsets and more deliberately when in rationalistic mindsets. According to our knowledge, the effects of such a manipulation have not been studied before in the cognitive-experiential literature nor in the justice domain and here we use this novel manipulation to examine whether people's mindsets may indeed influence their fairness reactions.

Furthermore, we explicitly note here that cognitive-experiential self-theory assumes that the operation of experiential mindsets is intimately associated with affect-related

experiences (see, e.g., Epstein & Pacini, 1999). In the current paper, we follow up this assumption by explicitly proposing that evidence for this supposition should be found when differences in the strength with which people tend to experience affect-related events would influence people's fairness reactions when they process information in experiential ways. In other words, we expect that when people have been brought into experiential mindsets, individual differences in affect intensity (Larsen et al., 1986, 1987) will moderate their reactions to fair and unfair events. In contrast, rationalistic mindsets by definition rely more on cold-cognitive information processing (e.g., Epstein & Pacini, 1999; Van den Bos, 2007) and hence we expect that when people have been brought in rationalistic mindsets they should show less, perhaps even nonsignificant, moderating effects of individual differences in affect intensity on their fairness reactions.

In order to test our predictions we measured in both experiments reported here, participants' level of affect intensity (Larsen et al., 1986) at the start of our experiments. Then we induced either experiential or rationalistic mindsets. This was followed by manipulating the outcomes (Experiment 1) or the procedures (Experiment 2) participants received, after which we measured participants' negative affective reactions to fair versus unfair outcome allocations in Experiment 1 as well as to fair versus unfair procedures in Experiment 2.<sup>1</sup>

### Experiment 1

#### *Method*

*Participants and design.* One hundred and seventy-seven students (96 women and 81 men) at Utrecht University participated in the experiment, and were paid 4 Euros for their participation. Participants first filled out the Affect Intensity Measure (AIM, Larsen et al., 1986). Then, they were randomly assigned to one of the conditions of a 2 (mindset: experiential vs. rationalistic)  $\times$  2 (outcome: unequal payment vs. equal payment) design.

*Experimental procedure.* Participants were invited to the laboratory to participate in a



study on human judgment. On arrival at the laboratory, participants were led to separate cubicles, each of which contained a computer, screen, and keyboard. All instructions were presented on the computer screens. The computers were used to present the stimulus information and to collect data on the dependent variables and manipulation checks.

Participants were informed that they would participate in three separate studies and that they would be clearly told when one study had ended and the next one would begin. The first study consisted of filling out the AIM. Example items are: “Sad movies deeply touch me”, “I can remain calm even in the most trying days” (recoded), “When I’m happy I bubble over with energy”, and “I get overly enthusiastic”. All ratings were made on 7-point scales (1 = *never*, 7 = *always*;  $\alpha = .84$ ). After a 1 minute break, the second study began in which either experiential or rationalistic mindsets were manipulated.

Participants in the *experiential condition* read: “Various research studies have shown that people process information they read differently. Important and often used methods are having many associative thoughts while reading, connecting the contents to one’s own experiences, and visualizing what is described while reading. Based on intuition, gut feelings, own experiences, and associations evoked by the information read, people form their opinions about the information. Terms used to express their opinions are expressive and impulsive in nature; people say what they think and what is on their hearts.”

Subsequently, participants were asked to think for 45 seconds about how they thought they would read, process, and react to information, when in such a state of mind, and asked to type in what they had just thought of. Next, participants were informed that they were about to read a text on which they could react by answering some open-ended questions.

Participants read: “We would like to ask you to read the text and answer the questions in the way just described to you. You could do this by reading the text and reacting to it as expressively and impulsively as possible, and by basing your opinion on your gut feelings and

intuition. You can write down anything you want while expressing your point of view. The first thing that comes to mind is often what you are thinking and that is what we would like to know. There are no right or wrong answers and reactions. Thus, everything that you type in will be the right thing, as long as it is your own, first reaction to what you are reading. Naturally, everything you type in will be treated confidentially and anonymously.”

This was followed by a summary of the main points of participants' instructions: “(1) React to the text and questions by typing in the first thing that comes to mind; (2) be as expressive as possible in your reactions; (3) be as intuitive as possible in your reactions; listen to your gut feelings; (4) there are no right or wrong answers, as every first reaction that is yours is right and you can type in anything you want”.

Participants subsequently read and responded to text materials (derived from Haidt, 2001), of which pilot testing had shown that participants at Utrecht University could react to it spontaneously in either experiential or rationalistic ways. Participants read: “Vera and Mark are brother and sister. They are traveling together around Thailand on summer vacation. One night they are staying alone in a cabin near the beach. Jointly they decide that it would be interesting and fun if they tried making love. At the very least it would be a new experience for each of them. Vera was already taking birth control pills for some time, but Mark uses a condom too, just to be safe. They both equally enjoy making love, but they decide not to do it again. They keep that night to themselves as a special secret, which makes them feel even closer to each other than already was the case.”

Participants were asked to answer the following open-ended questions by typing in their responses: (1) “What do you think of this situation? Was it a proper decision of Vera and Mark to make love?” and (2) “What do you think of Vera and Mark?” In this way, participants could actually carry out the mindset they found themselves in by reacting to a story that could be interpreted either based on gut feelings or by weighing pros and cons.

To induce rationalistic mindsets, a similar procedure was used. That is, in the *rationalistic condition* participants read: “Various research studies have shown that people process information they read differently. Important and often used methods are reading and scanning the text carefully, and analyzing it by weighing the pros en cons in a logical way. Based on facts and precise processing of the information read, people form their opinions about the information. Terms used to express opinions in this way are for example “On the one hand ... and on the other hand.”

Subsequently, participants were asked to think about how they would read, process, and react to information when in such a state of mind, and to type in what they had just thought of. Hereafter, they were informed that they were about to read a text on which they could react by answering some open-ended questions. Participants read: “We would like to ask you to read the text and answer the questions in the way just described to you. You could do this by reading the text and reacting to it by pondering upon the text, weigh it, and be as analytical as possible. Try to weigh the pros and cons, and to think as rationalistic as possible about the contents of the text, before forming an opinion and giving your reaction. There are no right or wrong answers and reactions. Thus, everything that you type in will be the right thing, as long as it is your own, rationalistic and carefully-constructed reaction to what you were reading. Naturally, everything you type in will be treated confidentially and anonymously.”

Hereafter, the main points were summarized: “(1) Take your time to ponder on the text and your reactions to the questions; (2) try to weigh the pros and cons: Think things over from all angles; (3) type in your reaction once you have thought it over as rationalistic and analytically as possible; (4) there are no right or wrong answers: Every reaction that is yours and well thought-through is right”. Then, the same text derived from Haidt (2001) and open-ended questions with regard to that text were given as in the experiential condition.

Directly hereafter, participants were informed that the second study had ended and the third study would begin. In this study outcome was manipulated. All participants were asked to imagine the following situation: “In addition to your studies you work for a couple of hours per week. Both the work and your colleagues are nice. Since there is plenty of work, you are all expected to work hard. Therefore, all of you give 100 percent and after a days work you get home tired. Everybody works equally hard and does the same kind and amount of work. You do not mind working hard since you like the job and get paid reasonably well. But then life seems to be getting more expensive. Your rent increases, as well as your tuition fees. Textbooks are getting more expensive, doing groceries cost you more and more, clothing is expensive too, and your social life demands increasingly more money. You start wondering how to pull it off which makes you feel uncertain. You also start wondering whether you should start working longer hours and if you do so, what has to become of your studies.”

In the *equal payment* condition, participants subsequently read: “Then you happen to find out that none of your colleagues, who are in everything comparable to you, earn more than you do. You also find out that your boss decided to give all of you the same raise. Thus, the salary stays the same for all of you.” In the *unequal payment* condition, participants read: “Then you happen to find out that your colleagues, who are in everything comparable to you, earn more than you do. You also find out that your boss decided to give your colleagues a raise. You on the contrary, will not receive anything like that and you are not told why.”

This was followed by questions measuring the dependent variables and the manipulation checks. All ratings were made on 7-point scales. The main dependent variables were participants’ negative affective reactions with regard to the outcome they received. Specifically, participants were asked to what extent they felt sad, disappointed and angry with their outcome (1 = *not at all*, 7 = *completely*;  $\alpha = .83$ ).

The manipulation of mindset was checked in two ways. First, participants were asked

to rate at the end of the experiment whether they, while reading the text about Vera and Mark, thought things through thoroughly before reacting (1 = *certainly not*, 7 = *certainly*); weighed and pondered upon their answers before reacting (1 = *certainly not*, 7 = *certainly*); reacted intuitively to the questions (1 = *certainly not*, 7 = *certainly*); reacted impulsively to the questions by typing in the first that came to their minds (1 = *certainly not*, 7 = *certainly*); and whether they answered the questions more rationalistically and analytically, or more impulsively and intuitively (1 = *very analytical and rationalistic*, 7 = *very intuitive and impulsive*). After the first two questions were recoded, all five items were averaged to form a reliable index to check on the manipulation of mindset ( $\alpha = .85$ ).

Second, participants' answers to the two open-ended questions were rated by two coders, who were blind to the conditions and the aim of the experiment. The coders were asked to read all the answers participants had given to the two open-ended questions and to rate on 7-point scales how experiential and how rationalistic the given answers were to their opinion. This was done as follows:

For the answers participants gave to the first open-ended question about the situation Vera and Mark found themselves in, coders answered five questions that rated the experiential quality of participants' answers, namely: "The answer to this question is given impulsively or intuitively (1 = *certainly not impulsive or intuitive*, 7 = *very impulsive or intuitive*); it seems that the first that came to mind is answered (1 = *certainly do not agree*, 7 = *certainly do agree*); the answer is given expressively (1 = *very inexpressive*, 7 = *very expressive*); the answer is more based on feelings than on rationalistic considerations (1 = *certainly do not agree*, 7 = *certainly do agree*); the answer is given more on a first impulse than deliberately (1 = *certainly do not agree*, 7 = *certainly do agree*)". The ratings were averaged per coder to form reliable scales to check for experiential mindset ( $\alpha_{\text{Coder 1}} = .97$ ;  $\alpha_{\text{Coder 2}} = .97$ ) and because these scales correlated highly ( $r = .75$ ,  $p < .001$ ), we collapsed them to form one scale

to check for experiential mindsets ( $\alpha = .97$ ). The same procedure was followed for the answers participants had given to the second open-ended question about what they thought of Vera and Mark ( $\alpha_{\text{Coder 1}} = .92$ ;  $\alpha_{\text{Coder 2}} = .95$ ;  $r = .66$ ,  $p < .001$ ;  $\alpha = .94$ ).

To measure the rationalistic quality of participants' given answers to the first open-ended question, coders also rated five items, namely: "The answer to this question is given well-considerately (1 = *certainly not well-considerate*, 7 = *very well-considerate*); the question was well thought through before the answer was given (1 = *certainly not well thought through*, 7 = *very well thought through*); the question is answered rationalistic and analytically (1 = *not rationalistic at all*, 7 = *very rationalistic*); you can tell from the answer that the person weighed pros and cons while answering the question (1 = *certainly do not agree*, 7 = *certainly do agree*); pros and cons are given in the answer, or different points of view are taken and given (1 = *pros and cons are certainly not given*, 7 = *pros and cons are certainly given*)." These were averaged per coder to form reliable scales to check for rationalistic mindset ( $\alpha$  coder 1 = .98;  $\alpha$  coder 2 = .98) and since the scales correlated highly ( $r = .77$ ,  $p < .001$ ), the scales were collapsed to form one scale to check for rationalistic mindset ( $\alpha = .97$ ). The same procedure was followed for the answers participants had given to the second open-ended question ( $\alpha_{\text{Coder 1}} = .95$ ;  $\alpha_{\text{Coder 2}} = .97$ ;  $r = .73$ ,  $p < .001$ ;  $\alpha = .96$ ).

As a check on the manipulation of outcome, participants were asked to rate themselves how fair (1 = *very unfair*, 7 = *very fair*), just (1 = *very unjust*, 7 = *very just*), right (1 = *not right at all*, 7 = *very right*), and justified (1 = *very unjustified*, 7 = *very justified*) they considered the outcome they received. These items were averaged to form a reliable scale to check on the manipulation of outcome ( $\alpha = .97$ ). Finally, participants were debriefed, thanked, and paid for their participation.

### Results

In all analyses, we regressed the manipulation checks and dependent variables on

AIM, mindset, and outcome, testing for all main effects and all interactions. Following Cohen, Cohen, West, and Aiken (2003), we centered the continuous AIM variable and effect-coded the independent variables mindset and outcome.

*Manipulation checks.* First, participants rated their reactions, on a scale ranging from rationalistic reactions to experiential reactions, as more experiential in the experiential mindset condition ( $M = 5.18$ ,  $SD = 0.98$ ) than in the rationalistic mindset condition ( $M = 3.31$ ,  $SD = 1.04$ ),  $\beta = -.69$ ,  $t(169) = -12.41$ ,  $p < .001$ . Since this effect was neither qualified by an interaction of mindset with either AIM or the procedure manipulation, nor by the three-way interaction, this indicates that the mindset manipulation was induced as intended.<sup>2</sup>

Second, regression analyses on the ratings of the coders' experiential and rationalistic mindset scales also only yielded significant main effects of mindset. More specifically, the coders rated participants' answers to the first open-ended question about what they thought of Vera and Mark's situation as more experiential for participants in experiential mindset conditions than for participants in rationalistic mindset conditions ( $\beta = -.47$ ,  $t(169) = -7.07$ ,  $p < .001$ ;  $M_{\text{Experiential}} = 6.06$ ,  $SD = 0.84$ ;  $M_{\text{Rationalistic}} = 4.64$ ,  $SD = 1.69$ ). The same effect was found for the second open-ended question about what participants thought of Vera and Mark ( $\beta = -.42$ ,  $t(169) = -6.01$ ,  $p < .001$ ;  $M_{\text{Experiential}} = 6.04$ ,  $SD = 0.78$ ;  $M_{\text{Rationalistic}} = 5.00$ ,  $SD = 1.40$ ). Further, the coders rated participants' answers to the first open-ended question as more rationalistic for participants in rationalistic mindset conditions than for participants in experiential mindset conditions ( $\beta = .44$ ,  $t(169) = 6.41$ ,  $p < .001$ ;  $M_{\text{Rationalistic}} = 2.57$ ,  $SD = 1.66$ ;  $M_{\text{Experiential}} = 1.36$ ,  $SD = 0.62$ ). The same effect was found for the second open ended question ( $\beta = .36$ ,  $t(169) = 5.04$ ,  $p < .001$ ;  $M_{\text{Rationalistic}} = 2.09$ ,  $SD = 1.34$ ;  $M_{\text{Experiential}} = 1.31$ ,  $SD = 0.53$ ). Therefore, we can conclude that the mindset manipulation was induced successfully.<sup>3</sup>

Finally, participants indicated to experience the equal outcome condition to be more fair ( $M = 5.59$ ,  $SD = 1.66$ ) than the unequal outcome condition ( $M = 1.75$ ,  $SD = 1.02$ ),  $\beta = .81$ ,

$t(169) = 18.33, p < .001$ . Since no other main and interactions effects were found, this implies that the outcome manipulation was induced as intended.

*Negative outcome affect.* Regressing the negative affect scale yielded a significant main effect of outcome,  $\beta = -.65, t(169) = -11.47, p < .001$ , and a significant two-way interaction between mindset and outcome,  $\beta = .12, t(169) = 2.10, p = .04$ . More importantly, these effects were qualified by a significant three-way interaction,  $\beta = .12, t(169) = 2.09, p = .04$ . To get better insight into these effects, we subsequently conducted regression analyses with AIM and outcome as predictors in both the experiential and rationalistic mindset conditions. In the *experiential condition* this yielded a significant main effect of outcome,  $\beta = -.73, t(83) = -10.08, p < .001$ , indicating that participants reacted with more negative affect following the unequal payment condition ( $M = 4.96, SD = 1.27$ ) compared to the equal payment condition ( $M = 2.27, SD = 1.25$ ). Moreover, as expected, we found the significant two-way interaction between AIM and outcome,  $\beta = -.20, t(83) = -2.85, p < .01$ , indicating that in the experiential condition, participants' fairness reactions were moderated by affect intensity, such that negative affective reactions increased with AIM in the unequal payment condition,  $\beta = .29, t(43) = 1.99, p = .05$ , but decreased with AIM in the equal payment condition,  $\beta = -.31, t(40) = -2.03, p < .05$ . Figure 1 depicts the visual representation of the regression model at one SD below and one SD above the mean on AIM (see Cohen et. al, 2003) and the left part of this figure shows the reported effects. In the *rationalistic mindset* condition, we only found a significant main effect of outcome,  $\beta = -.56, t(86) = -6.37, p < .001$ , indicating that participants' affective reactions were more negative in the unequal ( $M = 4.21, SD = 1.39$ ) compared to the equal payment condition ( $M = 2.36, SD = 1.34$ ), irrespective of affect intensity. The right part of Figure 1 shows this effect.

### Discussion

We proposed that if experiential mindsets influence people's fairness judgments



through affect, then this influence will be moderated by individual differences in affect intensity. The effects of Experiment 1 do indeed reveal that experiential mindsets cause fairness reactions to be influenced by individual differences in the strength with which people are inclined to react to affect-related events. In further correspondence with our predictions, these individual differences in affect intensity had no statistically significant effects on participants' fairness reactions when they had adopted a rationalistic mindset. That is, these participants only showed more negative reactions to unfair as compared to fair outcome allocations, irrespective of affect intensity.

For now we can conclude that the effects reveal that experiential mindsets may make people's fairness reactions more susceptible to affect-related processes, especially when negative affective reactions to fairness experiences are assessed. But before drawing strong conclusions, it was important to carry out a refined replication. Because we introduced a novel manipulation of experiential and rationalistic mindsets to test our ideas, the main aim of Experiment 2 was to replicate the findings that experiential mindsets cause fairness reactions to be strongly influenced by individual differences in affect intensity. Furthermore, because negative affect is a fairly general measure existing of different kinds of feelings, in Experiment 2 we took the differentiated nature of negative affective fairness reactions (see, e.g., Mikula et al., 1998; Krehbiel, & Cropanzano, 2000; Van den Bos, Poortvliet, Maas, Miedema, & Van den Ham, 2005; Weiss et al., 1999), better into account by measuring multi-item measures of both anger and sadness pertaining to the fairness events experienced in Experiment 2.

Of course there is more to fairness research than the fairness of outcome distributions. A major orientation of the fairness literature is on how people react to the perceived fairness of decision-making processes (e.g., Lind & Tyler, 1988), and a very well-known finding in the literature is that people evaluate procedures that allow them an opportunity to voice their

opinions in a decision-making process to be more fair than procedures that explicitly deny them such an opportunity (e.g., Folger, 1977). Therefore, in Experiment 2, we used a different fairness manipulation and varied the procedure by explicitly giving participants either voice or no voice, thereby exactly following often used methods of manipulating voice procedures (see, e.g., Folger, Rosenfield, Grove, & Corkran, 1979; Van den Bos, Lind, Vermunt, & Wilke, 1997).

### Experiment 2

In Experiment 2, we again measured individual differences in affect intensity and we conducted the same mindset manipulation as in Experiment 1. The procedure manipulation consisted of varying whether participants either were or were not explicitly given the opportunity to voice what they thought would be a good duration and degree of difficulty of a task they had to do as part of the experiment, by either giving or withholding them the opportunity to communicate their point of view by typing it in. Main dependent variables were procedural anger and sadness. To further examine the robustness of the effects reported here, in Experiment 2 there was, in contrast to Experiment 1, no uncertainty in our stimulus materials, in order to be able to examine whether the effects of our affective-experiential perspective also can be found in situations in which uncertainty is not accentuated.

#### *Method*

*Participants and design.* One hundred and eighteen (97 women and 21 men) Utrecht University students participated in the experiment, and received either 4 Euros or course credits for their participation. Participants first filled out the AIM, after which they were randomly assigned to one of the conditions of a 2 (mindset: experiential vs. rationalistic)  $\times$  2 (procedure: voice vs. no voice) design.

*Experimental procedure.* As in Experiment 1, participants were, on arrival in the laboratory, led to separate cubicles containing a computer that was used to present the

stimulus information and to collect data on the dependent variables and manipulation checks. In further correspondence with Experiment 1, participants were informed that the experiment consisted of three separate studies and that they would be clearly informed when one study had ended and the next study would begin. Additionally, participants were informed that it was possible to communicate via the computer network and that they had to do a computer task at the end of the experiment of which the duration and degree of difficulty still had to be decided upon. The first study consisted of filling out the AIM ( $\alpha = .86$ ). In the second study either experiential or rationalistic mindsets were induced in exactly the same way as in Experiment 1. Then, the third study began in which procedure was manipulated.

For this, participants received a message via the computer network from the experimenter. It was again outlined to participants that at the end they had to do a computer task of which the duration still had to be decided upon. In the *voice* condition, participants subsequently read that the experimenter was very interested in participants' opinion and therefore would be given the opportunity to type in how long they thought the computer task should last. They learned that the decision of the duration and degree of difficulty would be made based on their answers. Then, they were asked to think that over for 45 seconds, after which they were actually given the opportunity to express their opinion by typing in the minutes and seconds they thought were suitable for the last computer task. In the *no-voice* condition, participants read that the experimenter was not interested in their opinion and therefore would not be given the opportunity to type in how long they thought the computer task should last. Thus, the decision of the duration and degree of difficulty would not be made based on their answers. Then, they were asked to think that over for 45 seconds, after which they were actually not given the opportunity to express their opinion.

This was followed by questions encompassing the dependent variables and the manipulation checks. All ratings were made on 7-point scales. *Procedural anger* was assessed

by asking participants to indicate to what extent they felt angry, furious, enraged, venomous, wound-up, infuriated, and boiling with anger about the way they were treated in the experiment (1 = *not at all*, 7 = *completely*;  $\alpha = .88$ ). *Procedural sadness* was assessed by asking participants to indicate to what extent they felt sad, somber, glum, doleful, mournful, and sorrowful about the way they were treated in the experiment (1 = *not at all*, 7 = *completely*;  $\alpha = .88$ ).

The *mindset manipulation* was checked in the same two ways as in Experiment 1. First, participants were asked at the end of the experiment to rate on a 7-point scale how rationalistic versus experiential their reactions were ( $\alpha = .86$ ). Second, blind coders rated how experiential participants' answers to the first and second open-ended question (both  $\alpha$ 's = .96), as well as how rationalistic participants' answers to the first ( $\alpha = .95$ ) and second open-ended question ( $\alpha = .96$ ) were. Similar to Experiment 1, the *fairness of the procedure manipulation* was checked on a 7-point scale ( $\alpha = .96$ ). Finally, participants were debriefed, thanked, and paid for their participation.

### Results

In all analyses, we regressed the manipulation checks and dependent variables on the centered AIM, and effect-coded mindset and procedure, testing for all main effects and all interactions.

*Manipulation checks.* First, participants rated their reactions on a scale ranging from rationalistic to experiential, as more experiential in the experiential mindset condition ( $M = 5.05$ ,  $SD = 0.85$ ), than in the rationalistic mindset condition ( $M = 3.12$ ,  $SD = 1.05$ ),  $\beta = -.72$ ,  $t(110) = -11.12$ ,  $p < .001$ .

Second, blind coders rated participants' reactions to the first open-ended question as more experiential for participants in experiential mindset conditions ( $M = 5.44$ ,  $SD = 1.17$ ) than for participants in rationalistic mindset conditions ( $M = 2.74$ ,  $SD = 1.09$ ),  $\beta = -.76$ ,  $t(110)$

= -12.94,  $p < .001$ ). For the second question the same effect was found ( $\beta = -.75$ ,  $t(110) = -12.69$ ,  $p < .001$ ;  $M_{\text{Experiential}} = 5.65$ ,  $SD = 1.15$ ;  $M_{\text{Rationalistic}} = 2.79$ ,  $SD = 1.33$ ), as well as a main effect of AIM,  $\beta = -.13$ ,  $t(110) = -2.13$ ,  $p = .04$ , but this effect was not qualified by an interaction of mindset with AIM. The coders also rated participants' reactions to the first question as more rationalistic for participants in rationalistic mindset conditions ( $M = 5.17$ ,  $SD = 1.30$ ) than for participants in experiential mindset conditions ( $M = 2.89$ ,  $SD = 1.29$ ),  $\beta = .66$ ,  $t(110) = 9.53$ ,  $p < .001$ . The same effect was found for the second open question ( $\beta = .62$ ,  $t(110) = 8.75$ ,  $p < .001$ ;  $M_{\text{Rationalistic}} = 4.57$ ,  $SD = 1.75$ ;  $M_{\text{Experiential}} = 2.14$ ,  $SD = 1.25$ ). It is important to note that the effects of mindset were not qualified by an interaction with either procedure or affect intensity. The manipulation check findings suggest that the mindset manipulation was induced as intended.

Finally, being given the opportunity to voice their opinion was experienced by participants to be more fair ( $M = 5.55$ ,  $SD = 1.09$ ) than not being given the opportunity to voice their opinion ( $M = 3.69$ ,  $SD = 1.28$ ),  $\beta = .62$ ,  $t(110) = 8.30$ ,  $p < .001$ .

*Procedural anger.* Regressing the procedural anger scale yielded a significant main effect of procedure,  $\beta = -.18$ ,  $t(110) = -2.05$ ,  $p = .04$ , and a two-way interaction of mindset and procedure,  $\beta = .21$ ,  $t(110) = 2.32$ ,  $p = .02$ . More importantly, these effects were qualified by the predicted three-way interaction,  $\beta = .25$ ,  $t(110) = 2.74$ ,  $p < .01$  (see Figure 2 for the visual presentation of the regression model). To get better insight into these effects, we subsequently conducted regression analyses with AIM and procedure as predictors in both the experiential and rationalistic mindset conditions. In the *experiential mindset* condition this yielded a main effect of procedure,  $\beta = -.37$ ,  $t(56) = -3.15$ ,  $p < .01$ , indicating that participants reacted angrier toward not being given the opportunity to voice their opinion ( $M = 1.98$ ,  $SD = 1.07$ ) compared to being given that opportunity ( $M = 1.32$ ,  $SD = 0.55$ ). Moreover, as expected, we found a significant two-way interaction between AIM and procedure,  $\beta = -.30$ ,  $t(56) = -2.42$ ,  $p = .02$ ,

indicating that in the experiential condition participants' anger reactions were moderated by affect intensity, such that the anger reactions increased with AIM in the no-voice condition,  $\beta = .37$ ,  $t(27) = 2.08$ ,  $p < .05$ , whereas no effects were found in the voice condition,  $\beta = -.14$ ,  $t(29) = -0.73$ ,  $p = .47$ . The left part of Figure 2 shows these effects. In the *rationalistic mindset* condition, we found no significant effects, as the right part of Figure 2 illustrates.

*Procedural sadness.* Regressing the procedural sadness scale yielded a significant main effect of procedure,  $\beta = -.29$ ,  $t(110) = -3.26$ ,  $p < .01$ , and the three-way interaction,  $\beta = .21$ ,  $t(110) = 2.27$ ,  $p = .03$  (see Figure 3 for the visual presentation of the regression model). To get a better insight into these effects, we subsequently conducted regression analyses with AIM and procedure as predictors in both the experiential and rationalistic mindset conditions. In the *experiential condition* this yielded a significant main effect of procedure,  $\beta = -.31$ ,  $t(56) = -2.49$ ,  $p = .02$ , indicating that in the experiential condition participants reacted more sad toward not being given the opportunity to voice their opinion ( $M = 2.34$ ,  $SD = 1.13$ ) compared to being given that opportunity ( $M = 1.73$ ,  $SD = 0.92$ ). Moreover, as expected, we found a significant two-way interaction between AIM and procedure,  $\beta = -.28$ ,  $t(56) = -2.11$ ,  $p = .04$ , indicating that participants' sadness reactions were moderated by affect intensity, such that the sadness reactions tended to increase with AIM in the no-voice condition,  $\beta = .30$ ,  $t(27) = 1.65$ ,  $p = .11$ , whereas no such effects were found in the voice condition,  $\beta = -.22$ ,  $t(29) = -1.22$ ,  $p = .23$ . The left part of Figure 3 shows these effects. In the *rationalistic mindset* condition, we only found a significant main effect of procedure,  $\beta = -.28$ ,  $t(54) = -2.12$ ,  $p = .04$ , indicating that participants with a rationalistic mindset experienced more sadness in the no-voice condition ( $M = 2.20$ ,  $SD = 0.97$ ) compared to the voice condition ( $M = 1.76$ ,  $SD = 0.65$ ). The right part of Figure 3 shows this effect.

### Discussion

In accordance with our line of reasoning, and in correspondence with the results of

Experiment 1, the findings of Experiment 2 show that especially experiential mindsets make peoples' experience of fair and unfair events susceptible to affect intensity. When participants had adopted a rationalistic mindset these individual differences in affect intensity had no statistically significant effects on their fairness reactions. That is, these participants overall only showed more negative reactions to unfair as compared to fair procedures, irrespective of affect intensity.

### General Discussion

In both our experiments we induced either experiential or rationalistic mindsets in people and the experiments showed that people are able to react either more based on their gut feelings when in experiential states and more considered when in rationalistic states. Moreover, we found for both distributive and procedural fairness, two important fairness concepts in the fairness literature, evidence for our proposition that if experiential mindsets influence people's fairness judgments through affect, then this influence will be further moderated by individual differences in affect intensity, while this will not be the case when people are using rationalistic mindsets.

These are important findings, in part because they can cast some light on age-old discussions about whether people's reactions to events are based on rationalistic reasoning processes or that affect and intuition play an important role and guide people's reactions to fair and unfair events (see, e.g., Beauchamp, 2001; Cohen, 1986; Haidt, 2001, 2003; Haidt et al., 1993; Pizarro & Bloom, 2003). By integrating insights from cognitive-experiential self-theory (e.g., Epstein, 1985, 1994) and work on individual differences in affect intensity (e.g., Larsen et al., 1986; Van den Bos et al., 2003) our work shows that both experiential and rationalistic ways of processing information may influence people's fairness reactions. That is, particularly experiential mindsets make experienced fairness susceptible to individual differences in affect intensity thereby causing more differentiated reactions to fair and unfair

events. Our findings further suggest that rationalistic mindsets yield more norm-based fairness reactions, such that participants reported to experience more negative affect after unfair outcomes and procedures than after fair ones, irrespective of affect intensity. This interesting pattern of results, found in both experiments reported here, supports theoretical claims made about the role individual differences in affect intensity may play in experiential and rationalistic modes of processing justice related information.

Although this is a first line of studies, and although more research is needed to examine the robustness of the pioneering findings reported here, we do hope that one implication of our studies may be that they encourage researchers in the fairness literature to be more explicit about their assumptions of fairness reactions being driven by experiential or rationalistic processes.

One of the effects that might need to be studied further, is the effect that rationalistic mindsets seem to neutralize the moderating effect of affect intensity. An explanation for this effect might be found in the cognitive operations associated with individual differences in affect intensity (Larsen, Billings, & Cutler, 1996; Larsen et al., 1978). Individuals who are emotional more intense are found to have a natural tendency to interpret events more in a self referential manner compared to individuals who are emotional less intense. This tendency might be reflected in our findings, such that individuals with high affect intensity care more about the fair and unfair events in a self-referential way, thereby reacting with more (versus less) negative affect after unfair (versus fair) events. Rationalistic mindsets may interfere with this natural tendency to interpret events more in a self referential manner, such that the moderating effect of affect intensity is neutralized in this condition. An alternative explanation for the effect that rationalistic mindsets seem to neutralize the moderating effect of affect intensity on people's fairness reactions might be found in the literature in which it is argued that affective based judgment processes can be disrupted by analytic or more



deliberate thoughts (e.g., Halberstadt & Hooton, 2008; Wilson, Dunn, Kraft, & Lisle, 1989). Whether either one of these two explanations might give more insight in the reported effects of rationalistic mindsets on people's fairness reactions, would be a very interesting question for further research.

In order to test our line of reasoning, we introduced a novel manipulation of experiential and rationalistic mindsets to the research literature, in which we induced the mindsets in participants by having them answer two open-ended questions of a story they had just read. As our manipulation checks showed, people indeed reacted more based on their gut feelings when experiential mindsets were induced and more deliberately when rationalistic mindsets were induced. One could suggest that the effects on fairness reactions found in the experiments are caused by demand characteristics. Although participants were instructed to adopt either an experiential or a rationalistic mindset and to react accordingly to the story about Vera and Mark, it was highly unlikely that they would think the same instructions would count for the questions pertaining our measurement of their affective reactions to experienced fairness. First, within each experiment all parts in which the predictors were measured (affect intensity) or manipulated (mindset and outcome or procedure) were clearly presented as different studies, and none of the participants mentioned to have any suspicion about these three studies being related. Second, participants were not instructed to react either experientially or rationalistic to any information given during the fairness manipulations nor when reacting to these manipulations. Hence, we think it is reasonable to conclude, given the design and the reported results, that we developed a mindset manipulation in which the effects of this manipulation carried over to the tasks in which participants' reactions to fair and unfair events were measured, without participants being aware of this carry-over effect.

Furthermore, the results showed that especially people's negative affective reactions to fair and unfair events are susceptible to the combination of experiential mindsets and

individual differences in affect intensity as we mooted here. As pointed out in Footnote 3, coders blind to the conditions and aim of the experiments rated the content of participants' typed in answers as neither negative nor positive. Although we put forward in this first line of studies that this implies that these effects are not due to the fact that the story about Vera and Mark had a general negative effect on participants, we also would like to state that it would be interesting to further test our line of reasoning with different manipulations of both experiential and rationalistic mindsets.

Besides from theoretical implications, these findings might also have implications for everyday life. According to cognitive-experiential self-theory, people construct a personal theory of reality and a major function of this personal theory may be to make life as satisfactory as possible under the conditions perceived as by the individual. These personal theories thereby assimilate reality and direct behavior, and, more importantly for the current purposes, this can be done in experiential or rationalistic ways (see e.g., Epstein et al., 1992). We have shown that people indeed may react differently to their perceived reality of fair and unfair events, depending on the mindset they find themselves in at that given moment. That is, participants perceived equal outcomes and fair procedures as fairer than unequal outcomes and unfair procedures, but their affective fairness reactions differentiated depending on their mindsets. Based on other lines of research (see e.g., Cacioppo, Gardner, & Berntson, 1999; Weiss et al., 1999) arguing that different affects cause different behaviors, this may indicate that people will behave differently following similar fair and unfair events due to their mindsets. Of course these are assumptions that need to be tested in further research.

We tested our line of reasoning for both outcome allocations and voice procedures, two important lines of research within the fairness literature. It would be interesting to extend this and implement our line of reasoning on other forms of fairness and fairness-related issues. One of these issues being people's reactions when they believe in a just world in which one

gets what s/he deserves is threatened (e.g., Hafer & Begue, 2005; Lerner & Goldberg, 1999). It would be interesting for example to test whether people, when confronted with an innocent victim, blame these victims to a greater or lesser extent depending on the mindset they are in when confronted with that victim. This would also be a good opportunity to measure behavior in order to be able to test whether mindsets indeed instigate different behaviors.

### Conclusions

In the present paper we focused on the issue of what psychological processes are driving people's reactions to fair and unfair events. Hereby we integrated in our work the assumption made in cognitive-experiential self-theory that the operation of experiential mindsets is intimately associated with affect-related experiences. We found that people in experiential mindsets--compared to rationalistic ones--are strongly influenced by individual differences in affect intensity and that indeed especially in experiential mindsets the effects of fair and unfair events are further moderated by individual differences in affect intensity. This suggests that it is important to pay appropriate attention to people's states of mind and level of individual differences in affect intensity when addressing fairness reactions.

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## Footnotes

<sup>1</sup>Because fairness research shows that experienced fair and unfair events more often elicits effects on negative affective reactions than on positive reactions (see, e.g., Mikula, Scherer, & Athenstaedt, 1998; Van den Bos et al., 2005), we only assessed participants' negative affective reactions to the outcome distributions and procedures of Experiments 1 and 2.

<sup>2</sup>Please note that we also found that participants in the experiential mindset condition indicated to have reacted significantly more experientially than neutral (that is, they scored significantly above the midpoint of the 7-point scale),  $t(86) = 11.26, p < .001$ , and participants in the rationalistic mindset condition indicated to have reacted significantly more rationalistic than neutral (thus their scores were significantly below the midpoint of the 7-point scale),  $t(89) = -6.27, p < .001$ . Similar effects were found in Experiment 2.

<sup>3</sup>Blind coders also rated on a 7-point scale to what extent they thought the content of the answers typed in by participants was positive or negative (1 = *very negative*, 4 = *neither negative nor positive*, 7 = *very positive*). On average the coders rated participants' answers around the scale mean ( $M_{\text{first question}} = 3.76, SD = 1.19$  and  $M_{\text{second question}} = 3.77, SD = 0.84$ ), meaning that, according to the coders, the answers given by participants were neither very negative nor positive. Even though participants' reactions seem to be very neutral, we correlated the coders' ratings with our dependent variable (negative outcome affect) in order to rule out that the effects on our dependent variable were caused by possible variations in the feelings generated by the Vera and Mark scenario. As these correlations were not significant ( $r_{\text{first question}} = -.07, p = .34$  and  $r_{\text{second question}} = -.06, p = .46$ ) these checks suggest that the effects found on negative outcome affect are not due to a general negative feeling caused by the contents of the story about Vera and Mark. Similar effects were found in Experiment 2.



## Figure Captions

*Figure 1.* Strength of negative outcome affect as a function of affect intensity (one SD above and below the mean), mindset, and outcome (Experiment 1)

*Figure 2.* Strength of procedural anger as a function of affect intensity (one SD above and below the mean), mindset and procedure (Experiment 2).

*Figure 3.* Strength of procedural sadness as a function of affect intensity (one SD above and below the mean), mindset and procedure (Experiment 2).

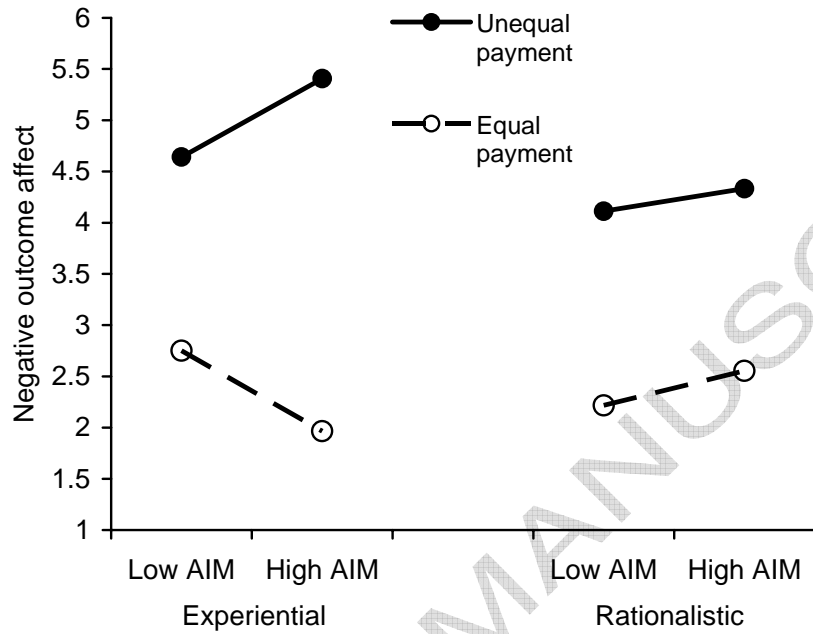


Fig.1

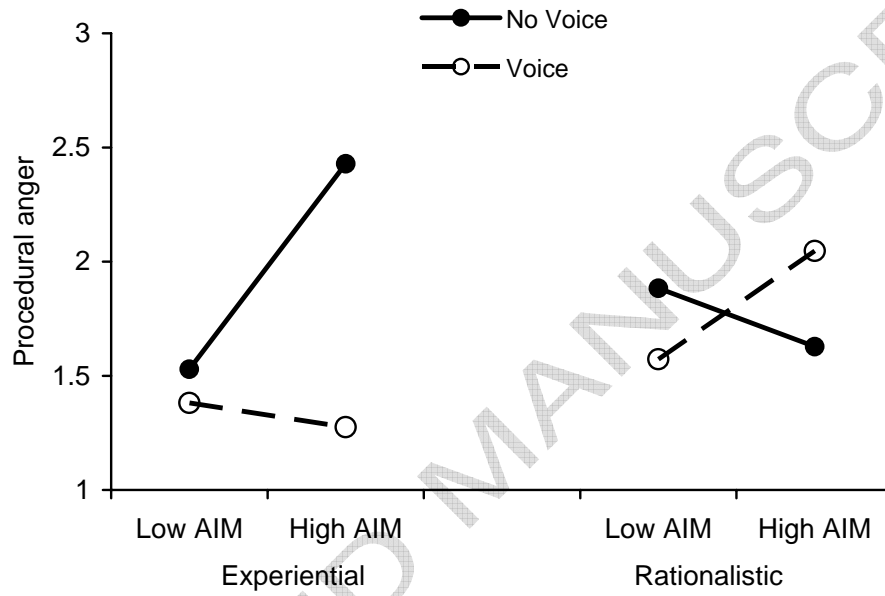


Fig.2

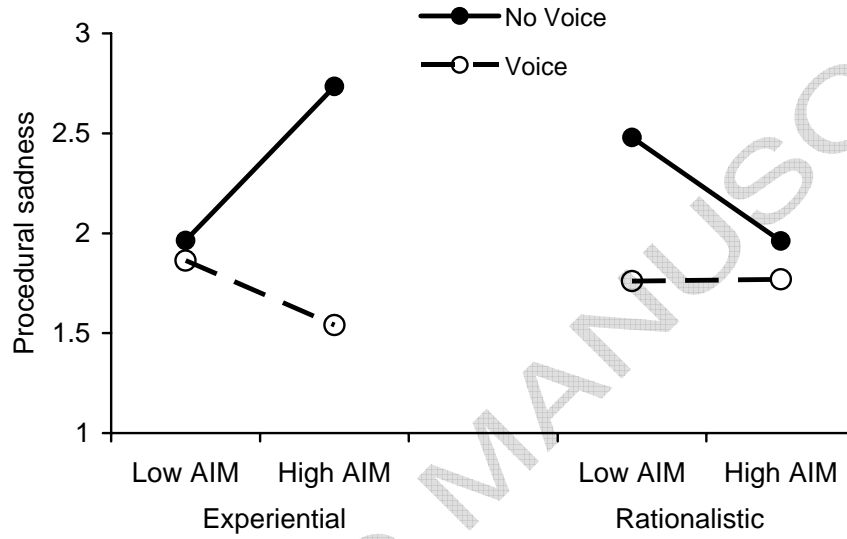


Fig.3