

Prior Experiences as Temporal Frames of Reference in Social Justice: The Influence of Previous Fairness Experiences on Reactions to New and Old Supervisors

Kees van den Bos,^{1,6} John W. Burrows,² Elizabeth Umphress,³ Robert Folger,⁴ James J. Lavelle,⁵ Jennifer Eaglestone,¹ and Julie Gee²

This paper focuses on the psychology of social change and social justice. Specifically, we focus on subordinates' reactions to new and old supervisors, and we argue that in evaluating these different types of supervisors, subordinates may rely on prior fair or unfair experiences as temporal frames of reference. We further propose that a result of these frames of reference may be that previous fairness experiences have a bigger impact on subordinates' reactions to subsequent neutral communications when an old rather than when a new supervisor is the source of that communication. Findings of two empirical studies indeed show that subordinates who had had fair experiences with a particular supervisor reacted more positively toward subsequent neutral messages when the communication was coming from the old supervisor rather than from the new supervisor. Subordinates who had had unfair experiences, however, reacted more negatively toward the communication when the source was the old rather than the new supervisor. Some evidence was also found for contrast effects such that people who react to a new supervisor may react more positively with the neutral demand from this authority figure when they have earlier experienced unfair as opposed to fair treatment

¹Utrecht University.

²Tulane University.

³Texas A&M University.

⁴University of Central Florida.

⁵University of Texas at Arlington.

⁶All correspondence should be addressed to Kees van den Bos, Department of Social and Organizational Psychology, Utrecht University, Heidelberglaan 1, 3584 CS Utrecht, The Netherlands; e-mail: k.vandenbos@fss.uu.nl.

by a different supervisory agent. These findings were obtained on subordinates' satisfaction with the supervisors' communication and their acceptance of the supervisor. Finally, we discuss the implications for the psychology of social change and social justice.

KEY WORDS: fairness; justice; frames of reference; assimilation; contrast; human judgment; social change.

In modern organizations, changes are implemented on a very regular basis (Lord and Hartley, 1998; Morgan and Zeffane, 2003). Quite often, organizational change is directed at achieving changes in management. For example, managers or supervisors may be moved to different departments or areas of responsibility to better utilize their skill sets or to help the organization adapt to new challenges. Because it is known that supervisors, and people's reactions to these authorities, play an important role in organizations and other situations (e.g., Tyler, 1990; Tyler and DeGoey, 1995; Tyler and Lind, 1992), here we argue that how subordinates react to new versus old⁷ supervisors is a crucial matter for comprehending modern social and organizational psychology, and these reactions should be taken into careful consideration if we want to understand the fundamentals of contemporary social and organizational behavior.

In the current paper, we study subordinates' reactions to new and old supervisors from the perspective of the literature on social justice. Specifically, because subordinates' satisfaction with and acceptance of supervisors are important for organizations to operate smoothly and employees to work happily (e.g., Folger and Cropanzano, 1998; Greenberg, 2000; Lind and van den Bos, 2002), we study these two important subordinate reactions to new and old supervisors in the two empirical studies to be reported here. Furthermore, after giving a brief introduction to the literature on social justice, we argue that subordinates may use their earlier experiences of fair or unfair treatment as frames of reference that influence the extent to which they react with satisfaction and acceptance to subsequent events. To gain thorough insight into the fundamentals of these possible temporal frames of reference we present the findings of two experimental studies in which we systematically studied the influence of previous fairness experiences on subordinates' reactions to new and old supervisors.

SOCIAL JUSTICE

The literature on social justice has revealed, among other things, that when employees feel fairly treated by their supervisors, this perception frequently leads to a variety of positive subordinate responses, such as enhanced employee

⁷We are using the terms "old" and "new" in this paper to refer to length of tenure between supervisors and subordinates, not to supervisors' age.

satisfaction (Folger and Konovsky, 1989; Huo *et al.*, 1996; Korsgaard *et al.*, 1995; McFarlin and Sweeney, 1992; Moorman, 1991), increased acceptance of supervisors (Huo *et al.*, 1996) and company policy (Greenberg, 1994; Lind, 1990), increased commitment to organizations and institutions (Folger and Konovsky, 1989; Korsgaard *et al.*, 1995; McFarlin and Sweeney, 1992; Moorman, 1991), increased organizational citizenship behavior (Konovsky and Folger, 1991; Podsakoff and MacKenzie, 1993), increased likelihood of conflict prevention and resolution (Bobocel *et al.*, 1998a,b), better job performance (Lind *et al.*, 1990), widespread acceptance of company policy (Greenberg, 1994; Lind, 1990) and supervisor directives (Huo *et al.*, 1996), higher levels of job satisfaction (Folger and Cropanzano, 1998), more positive emotional feelings (Weiss *et al.*, 1999), and increased positive affect and decreased negative affect (van den Bos, 2001a). People who experience unfair treatment, however, are more likely to leave their jobs (Alexander and Ruderman, 1987), are less likely to cooperate with one another (Lind, 2001), show lower levels of morale and higher levels of work stress and overt and covert disobedience (Huo *et al.*, 1996), are more likely to initiate lawsuits (Lind *et al.*, 2000), and may even start behaving in ways considered anti-social (Greenberg, 1993, 1997; Greenberg and Lind, 2000) or retaliatory (Skarlicki and Folger, 1997; Skarlicki *et al.*, 1999).

Recent theoretical developments present a generalized notion of social justice (e.g., van den Bos and Lind, 2002). In the social justice literature, these justice effects have been summarized under the heading of “the fair process effect” (Greenberg and Folger, 1983), the positive effect that experiences of fair treatment have on people’s subsequent reactions (for a recent review, see van den Bos, 2005). Because fair process effects can be found on many important cognitions, feelings, attitudes, and behaviors, getting insight into what is responsible for the effect is crucial for understanding how people think, feel, and behave in their organizational environments (Cropanzano and Folger, 1989, 1991; Cropanzano and Greenberg, 1997; Greenberg, 2000; Folger and Konovsky, 1989; Greenberg, 1990, 1993; Lind and Tyler, 1988; Tyler and Lind, 1992). To this end, we will focus on the fair process effect and will concentrate on a new explanation of the psychology of this effect (for reviews of other explanations of the effect, see Folger, 1986; Folger and Cropanzano, 1998; Folger *et al.*, 1979; Greenberg, 2000; Greenberg and Folger, 1983; Lind and Tyler, 1988; Lind and van den Bos, 2002; Tyler and Lind, 1992; van den Bos, 2005; van den Bos and Lind, 2002; Walker *et al.*, 1974).

THE PSYCHOLOGY OF THE FAIR PROCESS EFFECT

As mentioned earlier, the instances of the fair process effect in which we are interested here are subordinates’ satisfaction with events following the experience of fair and unfair treatment and their acceptance of supervisors. Here we argue

that fair process effects can be conceived of as assimilation effects insofar as subordinates may be linking their judgments of satisfaction and acceptance to earlier experiences of fair and unfair treatment (cf. van den Bos, 2002; see also Brockner *et al.*, 1992). As a result, subordinates' reactions may show fair process effects in that subordinates who have experienced fair treatment will be more satisfied and more accepting of supervisors than subordinates who have experienced unfair treatment.

We think that there are at least two conceptual advantages of interpreting the fair process effect as an assimilation effect. First, this interpretation makes apparent that the literature on social judgment (e.g., Biernat *et al.*; Herr *et al.*, 1983; Higgins, 1996; Kahneman and Miller, 1986; Schwarz and Bless, 1992a; Stapel and Koomen, 2001; Strack and Mussweiler, 1997) may be important to understand the psychology of the fair process effect. The clear general message from the theories and research endeavors in this domain is that frames of reference determine how people come to judge and to react to events that occur after people have constructed these frames of reference (e.g., Gilovich, 1991; Kahneman and Tversky, 1984; Tenbrunsel and Messick, 1999).

Second, we propose here that treating the fair process effect as an assimilation effect is conducive to understanding how people may react to new versus old supervisors. That is, we studied the influence of previous fairness experiences on subordinates' reactions to old versus new supervisors by varying whether subordinates in two experimental studies experienced either a fair or an unfair treatment by a particular supervisor. Participants in a control condition experienced neither a fair nor an unfair treatment. Participants then reported to a new supervisor or kept the same supervisor. Next, the supervisor communicated a message to the participants that was neither very positive nor very negative. Participants' satisfaction with this message and/or their acceptance of the supervisor served as the main dependent variables. We have derived this set-up from the above-mentioned social judgment literature, and we think this set-up is important here because experiences of fair or unfair treatment in organizations are typically followed by subsequent interactions between the supervisor and the subordinates. This temporal ordering of social interactions undoubtedly can play a key role in organizations (and elsewhere), yet it is a relatively neglected aspect in the domain of social and organizational behavior.

We argue here that a main benefit of looking at the influence of previous fairness experiences on subsequent reactions by means of a frames-of-reference perspective is that this perspective suggests the potentially important possibility of temporal fairness frames of reference. That is, on the basis of the above-mentioned message of the social judgment literature we propose that the experience of fair or unfair treatment can serve as a frame of reference that may color people's reactions to subsequent events. Furthermore, we reason that this insight may contribute to the psychology of how people may react to old versus new supervisors. That is, consistent with the social judgment literature, we argue that after subordinates

have experienced either fair or unfair treatment by a particular supervisor, the fairness frames of reference which the subordinates will have developed as a result of these fairness experiences will have stronger effects on their reactions to subsequent supervisory communication when that communication comes from the same supervisor the subordinates previously had encountered than when it comes from a new supervisor.

The above reasoning is based on the inclusion/exclusion model (Schwarz and Bless, 1992a). This general framework for conceptualizing assimilation and contrast effects proposes that individuals who form judgments about some target stimulus first need to retrieve some cognitive representation of the stimulus. In addition, they need to determine some standard of comparison to evaluate the stimulus (Bless and Schwarz, 1998). Following Kahneman and Miller (1986), this is frequently a representation of some alternative state of reality. Whether the information that comes to mind (both the representation of reality as well as its alternatives) results in assimilation or contrast effects depends on how the information is categorized. The model specifies different operations depending on whether the information that comes to mind is subordinate or superordinate to the target category (Bless and Schwarz, 1998). Context information that is subordinate to the target category will result in an assimilation effect if it is included in the temporary representation that individuals form of the target category. Individuals may also exclude information that comes to mind from the target category and the model further argues that exclusion of information from the representation of the target results in contrast effects (for more elaborate introductions to the inclusion/exclusion model, see e.g., Bless and Schwarz, 1998; Schwarz and Bless, 1992a,b).

Building on the Schwarz and Bless inclusion/exclusion model, we argue that when individuals form representations of a target—in our studies a superior—by interpreting the first information that is accessible about the target (Bless and Schwarz, 1998). If individuals receive information that their superior is unfair, then individuals will use this unfair information as representative of the target and judge subsequent neutral information about the superior as unfair. Conversely, if individuals receive information that their superior is fair, then they will judge subsequent neutral information as fair. This tendency to assimilate subsequent information based on a previously formed representation of a target is termed the assimilation effect, which, as stated above, is consistent with the fair process effect.

We further argue, however, that interpreting subsequent information from a new target, in this case a new superior, can result in a contrast effect (Bless and Schwarz, 1998; Schwarz and Bless, 1992a,b) or a reverse fair process effect (van den Bos, 2002). In our studies, the introduction of a new supervisor generates comparison processes, such that individuals will compare the treatment received from the old supervisor to the treatment received from the new supervisor. Such comparisons can lead to contrast effects (e.g., van den Bos, 2002). The contrast effect that we will focus on here is individuals' reactions to a neutral communication from either a new or old supervisor. Individuals who have received fair treatment

by an old supervisor will compare that fair treatment to the neutral communication from a new supervisor, and evaluate neutral information from the new supervisor more negatively than when the same neutral information is communicated by the old supervisor. However, individuals who have received unfair treatment by an old supervisor will compare that unfair treatment to the neutral communication, and will have more positive reactions toward the neutral information when it is communicated by a new supervisor than by an old supervisor. Thus, the same neutral information will be viewed (1) more negatively when it is communicated by the new rather than the previously *fair* old supervisor, and (2) more positively when it is communicated by the new rather than the previously *unfair* old supervisor. Both tendencies reflect a contrast effect as the same underlying mechanism.

We therefore predict that subordinates who have previously had *fair* experiences will react more positively toward the subsequent (objectively neutral) supervisory communication when it comes from the old supervisor than when it comes from the new supervisor (*Hypothesis 1*). We further hypothesize that subordinates who have previously had *unfair* experiences will react more negatively toward the subsequent communication when the source is the old as opposed to the new supervisor (*Hypothesis 2*). Subordinates who have not experienced explicitly fair or unfair experiences will not have developed fairness frames of reference and therefore should show no strong differential reactions to new and old supervisors (*Hypothesis 3*).

Because the possibility of temporal fairness frames of reference may contribute to social scientists' understanding of the effects of social and organizational change in general and the psychology of reactions to new and old supervisors in particular, we tested the above-hypothesized temporal fairness effects in two studies. Furthermore, because the bulk of justice research employs correlational research methods within real-life situations (Tyler and Lind, 1992; van den Bos, 2001b), social justice scholars know many of the effects fairness perceptions can have on people in organizations and other important real-life social interactions. However, this knowledge may have been achieved at the expense of thorough insights into the fundamentals of social justice and social behavior (Lind and van den Bos, 2002), especially in terms of causal ordering and underlying mechanisms. We therefore propose to study the fundamental issue of how people react to supervisory change by means of research methods well suited to studying causal mechanisms: laboratory experiments.

STUDY 1

As is common in the social judgment literature (e.g., Biernat *et al.*, 1997; Gilovich, 1991; Herr *et al.*, 1983; Higgins, 1996; Kahneman and Miller, 1986; Kahneman and Tversky, 1984; Schwarz and Bless, 1992a; Stapel and Koomen, 2001; Strack and Mussweiler, 1997; Tenbrunsel and Messick, 1999), we used a scenario methodology for this experiment. In the scenario, participants confronted

a situation to which they easily could relate: they thought about renting a unit in an apartment building supervised by a landlord. We varied whether they had either fair, unfair, or no explicitly fair or unfair experiences with their landlord. This experience was followed by a manipulation of landlord change in which half of the participants kept the same landlord and the other half received a new landlord. After this manipulation, the landlord communicated a message to the participants that was neither particularly positive nor negative, and participants' satisfaction with this message was measured.

Method

Participants and Design

Ninety-nine students (54 women) at Utrecht University participated in the study and were paid for their participation. Participants were randomly assigned to one of the conditions of the 3 (previous experience: fair vs. unfair vs. absent) \times 2 (landlord: old vs. new) between-participants design.

Experimental Procedure

Students at Utrecht University were invited to the laboratory to participate in several studies. On arrival at the laboratory, participants were led to separate cubicles, each of which contained a computer with a monitor and a keyboard. The computers were used to present the stimulus information and to collect data on the dependent variables. Participants participated in the study and answered the questions that constituted the dependent variables and manipulation checks after participating in other, unrelated studies. The studies lasted a total of 45 min, and participants were paid 10 Dutch guilders for their participation (1 Dutch guilder equaled approximately US\$0.45 at the time the studies in this paper were conducted).

In the experiment, all participants were asked to imagine a situation in which they were living in a rental apartment in an apartment building. In this situation, participants had either fair, unfair,⁸ or no explicitly fair or unfair experiences with their landlord. Participants in the fair experience condition read the following:

You are living in a rental apartment in an apartment building. The landlord of this building charges you the same rent as the other people living in the building. When your shower

⁸We piloted the fair and unfair experiences by having 90 undergraduate business students (46 women) at a private university in the southern United States read the fair and unfair experience materials (in a random order) and asking them after each experience whether the landlord treated them fairly (1 = *strongly disagree*, 5 = *strongly agree*). As expected, results clearly indicated that, independent of order of presentation, the fair experience condition indeed was perceived as fair ($M = 4.8$, $SD = 0.7$), whereas the unfair experience condition was not ($M = 1.2$, $SD = 0.7$); the difference between perceptions was highly significant, $F(1, 88) = 1000.75$, $p < .001$, $\eta^2 = .92$.

broke down, the landlord immediately showed up and repaired the shower. When other things of the other people in the building break down, he also turns up right away. He often takes the initiative to repair things that are about to break down (without you or the other people having to call him) before the things actually break down.

Participants in the unfair experience condition read the following:

You are living in a rental apartment in an apartment building. The landlord of this building charges you a higher rent than the other people living in the building. The landlord told you that he does so because you are a student and the other people living in the building are all paid employees. When your shower broke down, the landlord did not show up and did not repair the shower. When other things of the other people in the building break down he does turn up right away. Now you had to repair the shower yourself.

In the condition where participants had no explicitly fair or unfair experiences, they read only the following sentence:

You are living in a rental apartment in an apartment building.

This portion of the experiment was followed by the manipulation of a new or old landlord. In the new landlord condition, participants read the following sentence:

Now there is a new landlord.

This sentence was not presented to participants in the old landlord condition. After this stage, all participants were informed about a demand by the current landlord that pretesting had shown to be neither very positive nor very negative but rather ambiguous. All participants read the following sentence:

You meet the landlord and he tells you that you should not put your bike in the hallway but should take it outside instead.

After reading this, the dependent variables were assessed. All ratings were made on 7-point Likert-type scales. Participants were asked how satisfied (1 = *very dissatisfied*, 7 = *very satisfied*) and happy (1 = *very unhappy*, 7 = *very happy*) they were with the landlord's demand. Participants' answers to these questions were averaged to form a reliable scale of participants' satisfaction ratings (Cronbach's $\alpha = .89$).

Results and Discussion

The means and standard deviations of the satisfaction scale are displayed in Table I. A two-way analysis of variance (ANOVA) on the scale yielded the predicted interaction effect only, $F(2, 93) = 14.01$, $p < .001$, $\eta^2 = .23$. To interpret this effect, we performed a least significant difference test for multiple comparisons between means ($p < .05$; Kirk, 1982), with the six cells of our design serving as the independent variable. Table I shows the result of this test. As hypothesized, results showed that within the fair experience condition, participants were more

Table I. Means and Standard Deviations of Satisfaction Ratings as a Function of Previous Experience and Old or New Landlord (Study 1)

Landlord	Previous experience					
	Fair		Unfair		Absent	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Old	3.4 _a	1.2	1.4 _c	0.7	2.8 _{a,b}	1.0
New	2.3 _b	0.9	3.0 _{a,b}	1.5	2.4 _b	0.9

Note. Means are on 7-point scales, with higher values indicating higher ratings of satisfaction with the landlord’s decision. Means with no subscripts in common differ significantly ($p < .05$), as indicated by a least significant difference test for multiple comparisons between means (Kirk, 1982).

satisfied with the landlord’s demand when the demand was made by the old landlord than when it was put forward by the new landlord. In further correspondence with predictions, participants in the unfair experience condition were less satisfied with the demand when the old as opposed to the new landlord uttered it. Finally, as expected, having to do with an old or a new landlord had no significant effect on satisfaction ratings of participants in the condition where previous experiences had been neither explicitly fair nor unfair.

Note that, as expected, the least significant difference test indicated that participants who reacted to the old landlord showed a fair process effect such that participants were more satisfied with the landlord’s demand when they had earlier experienced fair as opposed to unfair treatment by the landlord. These results correspond with earlier fair process studies. The difference between the participants who had experienced fair treatment and those who had experienced unfair treatment was not statistically significant in the condition in which participants received a new landlord. Taken together, these findings show that, as predicted, earlier fairness experiences led to assimilation effects when participants kept the same landlord as opposed obtaining a new one.

Interestingly, the new landlord condition revealed a trend of a reversed fair process effect. That is, the direction of mean differences (see Table I) shows that participants who reacted to a new landlord were somewhat more satisfied with the demand from this authority figure when they had earlier experienced unfair as opposed to fair treatment by a different supervisory agent. This difference between means was not significant in the least significant test (which is a conservative post hoc test; Kirk, 1982), but a planned comparison test showed this effect to be statistically significant, $t(27) = -2.80, p < .01$. This indicates that in the new landlord condition there was evidence for a contrast effect. This effect is in accordance with the social judgment literature in general and the inclusion/exclusion model (Bless and Schwarz, 1998; Schwarz and Bless, 1992a,b) in particular.

The inclusion/exclusion model assumes that when individuals form a judgment about some target stimulus, they first need to form some mental representation

of it. In addition, they need to determine some standard of comparison against which the target is evaluated. The model further proposes that if the information that comes to mind is included in the temporary representation of the judgmental target, that information will result in an assimilation effect. If the information is excluded from the representation of the target, however, the information may be used for constructing a standard of comparison that can produce contrast effects. In the present study, inclusion may have occurred in the old landlord condition, yielding an assimilation effect on participants' satisfaction ratings (fair process effect). Exclusion may have been operating within the new landlord condition, resulting in some evidence for a contrast effect (reversed fair process effect).

An important precondition before contrast effects can be obtained is that different pieces of information should be comparable to each other, hence making comparisons between the standard of comparison and other information possible (e.g., Schwarz and Bless, 1992a). Within the fairness domain, different pieces of fairness information may be difficult to compare with each other, thereby creating difficulty for people in contrasting fairness information with earlier fairness frames of reference (van den Bos, 2002). This difficulty may explain why contrast effects are not very often reported in the literature on organizational justice (Lind and Tyler, 1988; for an exception, see van den Bos, 2002; see also Brockner *et al.*, 1992; van den Bos *et al.*, 1999). The present findings seem to correspond with this "exception to the rule" tendency, in terms of contrast-effect indications within the new landlord condition. We will return to this possibility in Study 2 and the General Discussion.

STUDY 2

Before drawing firm conclusions on the basis of the results of Study 1, we deemed a second study useful. Participants in Study 1 read a scenario and responded to this hypothetical situation. We wanted to learn whether similar findings would result when participants encountered a situation in which they directly experienced variations in treatment fairness and supervisory change. In Study 2, therefore, the participants encountered these manipulations first-hand, on a non-scenario basis.

As a further extension of Study 1, this follow-up study tested our hypotheses in a work-related setting: Subordinates completed tasks in different work rounds (cf. Lind *et al.*, 1990). In the first work round, participants completed a task consisting of 20 items. Following earlier justice work (e.g., Leventhal, 1980; van den Bos *et al.*, 1997), the fairness of treatment manipulation varied whether the supervisor of the first work round graded all 20 items (accurate procedure), or only 1 of the 20 items (inaccurate procedure), or the supervisor did not explicitly grade the items accurately or inaccurately (control condition).

This round was followed by a second work round in which participants either kept the same supervisor or received a new supervisor. In the second work round, the supervisor communicated a message to the participants that was neither particularly positive nor negative. In Study 2, this message had to do with the supervisor's decision about the type of tasks that participants had to complete in the second work round. As in Study 1, we assessed participants' satisfaction with this message. Furthermore, because acceptance of supervisors is of crucial importance for the smooth running and pleasant functioning of organizations (e.g., Folger and Cropanzano, 1998), and because we wanted to gain an indication of the robustness of the effects reported in Study 1, we also measured participants' acceptance of the supervisor's decisions (cf. Tyler, 1990; Tyler and DeGoe, 1995).

Method

Participants and Design

One hundred and twenty students (91 women) at Utrecht University participated in the study and were paid for their participation. Participants were randomly assigned to one of the conditions of the 3 (previous experience: accurate vs. inaccurate vs. absent) \times 2 (supervisor: old vs. new) between-participants design.

Experimental Procedure

Students at Utrecht University were invited to the laboratory to participate in a study on how people perform tasks. On arrival at the laboratory, participants were led to separate cubicles, each of which contained a computer with a monitor and a keyboard. Next to the monitor, participants found pieces of paper and a pencil. Participants were told that the computers were connected to one another and that the experimenter could communicate with them by means of the computer network. The computers were used to present the stimulus information and to measure the dependent variables and the manipulation checks. The students participated in the study before and after participating in other, unrelated studies. The studies lasted a total of 75 min, and participants were paid 17.50 Dutch guilders.

In the first part of the study, participants were informed that they would have to complete two types of tasks in this study. In the first work round, they would complete an estimation task. In the second work round, they would complete a language task. This latter task would consist of copying text either by hand or on the computer. Participants were further told that a supervisor named Rob would supervise the first work round.

The first work round then started. Participants were instructed that in this round, they would complete an estimation task consisting of 20 estimation items.

The estimation items were then explained: for each estimation item, figures would be presented on the computer screen. Participants were informed that each figure would consist of 180 squares and that each square would be either black or white. For each estimation item, a figure was presented for 5 s on the computer screen, and participants had to estimate the number of black squares in the figure (cf. van den Bos *et al.*, 1997). After participants had practiced 3 times with the estimation items, participants completed the 20 items of the estimation task.

After the estimation task had ended, the experience manipulation took place. In the accurate experience condition, participants experienced an accurate procedure (Leventhal, 1980; van den Bos *et al.*, 1997): the supervisor, Rob, told participants that he would grade all 20 estimation items. In the inaccurate experience condition, Rob told the participants that he would grade only 1 of the 20 estimation items. To assess whether participants indeed judged their experience with Rob to be fair or unfair, drawing from scales used in prior research (e.g., van den Bos, 2001a, 2002), participants were asked how fair (1 = *very unfair*, 7 = *very fair*), just (1 = *very unjust*, 7 = *very just*), appropriate (1 = *very inappropriate*, 7 = *very appropriate*), and justified (1 = *very unjustified*, 7 = *very justified*) they considered the way in which they had been treated by Rob. This process yielded a reliable scale of participants' fairness experiences (Cronbach's $\alpha = .96$). In the control condition, in which participants had no explicitly fair or unfair experiences with Rob and in which we tried to establish that fairness was not a salient issue to participants, there was no announcement of the number of items to be graded and these participants were not asked the above-mentioned fairness experience items.

The first work round was then ended and the second work round began. At that moment, the supervisor manipulation (old vs. new) was induced. Participants in the new supervisor condition were told that a new supervisor called Henk would supervise the second work round. Participants in the old supervisor condition were informed that Rob would be the supervisor of the second work round.

All participants were then reminded that in the second work round, they would complete a language task that would consist of copying text either by hand or on the computer. This was followed by a decision that was neither very positive nor very negative: the supervisor told participants that he had decided that they should use the computer to copy the text.

After this process, participants were asked questions pertaining to the dependent variables and manipulation checks. Consistent with Study 1, participants' satisfaction ratings were assessed by asking participants how satisfied (1 = *very dissatisfied*, 7 = *very satisfied*) and happy (1 = *very unhappy*, 7 = *very happy*) they were with the fact that they had to use the computer to copy the text. Participants' answers to these questions were averaged to form a reliable scale of participants' satisfaction ratings (Cronbach's $\alpha = .83$). Participants were further asked to what extent they were willing to accept the supervisor's decisions (1 = *very weak*, 7 = *very strong*), to respect the supervisor's decisions (1 = *very weak*, 7 = *very strong*),

to comply with the supervisor's decisions (1 = *very weak*, 7 = *very strong*), to yield to the supervisor's decisions (1 = *very weak*, 7 = *very strong*), and if they would like to help the supervisor (1 = *very weak*, 7 = *very strong*). Participants' answers to these questions were averaged to form a reliable scale of acceptance of the supervisor (Cronbach's $\alpha = .90$).

The manipulation of previous experience was checked by asking participants to what extent they agreed with the statement that 20 of the estimation items had been graded (1 = *strongly disagree*, 7 = *strongly agree*), to what extent they agreed with the statement that only 1 of the 20 items had been graded (1 = *strongly disagree*, 7 = *strongly agree*), and to what extent they agreed with the statement that they had not been informed about the number of items that had been graded (1 = *strongly disagree*, 7 = *strongly agree*). The manipulation of the old versus new supervisor was checked by asking participants to what extent they agreed with the statement that in both the first and second work rounds, they had the same supervisor (1 = *strongly disagree*, 7 = *strongly agree*) and to what extent they agreed with the statement that in the two work rounds, they had different supervisors (1 = *strongly disagree*, 7 = *strongly agree*). When the participants had answered these questions, and had completed the other studies in which they would participate, they were thoroughly debriefed and paid for their participation.

Results and Discussion

Manipulation Checks

A two-way multivariate analysis of variance (MANOVA) on the three manipulation checks of previous experience (the accurate experience check, the inaccurate experience check, and the no explicit experience check) yielded only a main effect of experience at both the multivariate and univariate levels: multivariate $F(6, 224) = 146.69$, $p < .001$, $\eta^2 = .80$; for the accurate experience check, $F(2, 114) = 234.66$, $p < .001$, $\eta^2 = .80$; for the inaccurate experience check, $F(2, 114) = 133.13$, $p < .001$, $\eta^2 = .70$; for the no explicit experience check, $F(2, 114) = 104.44$, $p < .001$, $\eta^2 = .65$. Least significant difference tests ($p < .05$) with experience as an independent variable revealed that participants in the accurate experience condition agreed more with the statement that all 20 of their estimation items had been graded ($M = 6.6$, $SD = 1.2$) than participants in the other conditions ($M = 1.4$, $SD = 1.2$), that participants in the inaccurate experience condition agreed more with the statement that only 1 of the 20 items had been graded ($M = 5.8$, $SD = 2.0$) than those participants in the other conditions ($M = 1.4$, $SD = 1.2$), and that participants in the experience-absent condition agreed more with the statement that they had not been informed about the number of items that had been graded ($M = 6.4$, $SD = 1.4$) than participants in the

other conditions ($M = 1.9$, $SD = 1.7$). These results suggest that the experience manipulation was successfully operationalized.

A two-way MANOVA on the two manipulation checks of the manipulation of the old versus new supervisor (the same supervisor check and the different supervisor check) showed only a main effect of the supervisor manipulation at both the multivariate and univariate levels: multivariate $F(2, 113) = 481.18$, $p < .001$, $\eta^2 = .90$; for the same supervisor check, $F(1, 114) = 355.07$, $p < .001$, $\eta^2 = .76$; for the different supervisor check, $F(1, 114) = 786.92$, $p < .001$, $\eta^2 = .87$. Inspection of the means indicated that participants in the same supervisor condition agreed more with the statement that in both work rounds, they had the same supervisor ($M = 5.9$, $SD = 1.8$) than participants in the different supervisor condition ($M = 1.1$, $SD = 0.7$) and that participants in the different supervisor condition agreed more with the statement that in the two rounds, they had different supervisors ($M = 6.5$, $SD = 0.6$) than participants in the same supervisor condition ($M = 1.2$, $SD = 0.6$). These results indicate that the supervisor manipulation was induced successfully.

Fairness Experiences

In the fair and unfair experience conditions, participants were asked whether they judged their experience with the supervisor in the first work round to be fair or unfair. A two-way ANOVA on these fairness experiences yielded a main effect of experience only, $F(1, 76) = 76.06$, $p < .001$, $\eta^2 = .50$. As intended, participants in the accurate condition judged the way they had been treated in the first round to be more fair ($M = 5.6$, $SD = 1.0$) than participants in the inaccurate experience condition ($M = 3.3$, $SD = 1.3$). These results yield additional evidence that the experience manipulation was induced as intended.

Dependent Variables

The dependent variables of Study 2 measured participants' satisfaction with the outcome of the second work round's decision and their acceptance of the supervisor. The means and standard deviations of the satisfaction and acceptance scales are displayed in Table II. We first inspected the multivariate effects of the experience and supervisor manipulations on these scales in a two-way MANOVA. These analyses yielded a multivariate main effect of the supervisor manipulation, $F(2, 113) = 3.80$, $p < .03$, $\eta^2 = .06$, and, more interestingly, a significant multivariate interaction effect, $F(4, 226) = 3.17$, $p < .02$, $\eta^2 = .05$. After having found these results, which were supportive of our predictions, we then set out to test the univariate effects.

Participants' satisfaction ratings showed a main effect of the supervisor manipulation, $F(1, 114) = 7.37$, $p < .01$, $\eta^2 = .11$, and, as in Study 1, the

Table II. Means and Standard Deviations of Satisfaction Ratings and Acceptance of Supervisor as a Function of Previous Experience and Old or New Supervisor (Study 2)

Dependent variable	Supervisor	Previous experience					
		Accurate		Inaccurate		Absent	
		<i>M</i>	SD	<i>M</i>	SD	<i>M</i>	SD
Satisfaction	Old	4.5 _{a,b}	1.0	3.8 _c	1.0	4.0 _{b,c}	1.1
	New	4.4 _{a,b,c}	1.1	4.9 _a	1.0	4.6 _{a,b}	1.2
Acceptance	Old	5.7 _a	0.8	4.6 _c	1.0	5.2 _{a,b,c}	0.9
	New	5.0 _{b,c}	1.3	5.3 _{a,b}	0.8	5.2 _{a,b,c}	1.0

Note. Means are on 7-point scales, with higher values indicating higher ratings of the dependent variable in question. Means with no subscripts in common differ significantly ($p < .05$), as indicated by a least significant difference test for multiple comparisons between means (Kirk, 1982).

hypothesized interaction effect, $F(2, 114) = 3.51, p < .04, \eta^2 = .08$. To interpret these effects, we performed a least significant difference test ($p < .05$), with the six cells of our design serving as the independent variable. Table II shows the result of this test. Contrary to expectations, results showed no significant supervisor effect within the accurate experience condition. In correspondence with predictions, participants in the inaccurate experience condition were significantly less satisfied with the outcome of the second work round’s decision when that decision had been made by the old as opposed to the new supervisor. Furthermore, as expected, the old versus new supervisor had no significant effect on satisfaction ratings of participants in the condition in which previous experiences had been neither explicitly accurate nor inaccurate.

Participants’ ratings of their acceptance of the supervisor yielded the predicted interaction effect only, $F(2, 114) = 4.70, p < .02, \eta^2 = .08$. As hypothesized, a least significant difference test (for results, see Table II) showed that in the accurate experience condition, acceptance of the supervisor was higher when participants were interacting with the same supervisor as they did before than when they were interacting with a different supervisor. Furthermore, in the inaccurate experience condition, supervisor acceptance was lower when participants were dealing with the same as opposed to a different supervisor. Finally, as anticipated, the supervisor manipulation did not affect participants’ acceptance of the supervisor when they did not have explicit accurate or inaccurate experiences with the supervisor in the first work round.

Furthermore, the least significant difference tests showed that participants who reacted to the old supervisor demonstrated fair process effects on both dependent variables of Study 2. Participants in the old supervisor condition were more satisfied with the task decision made in the second work round and showed higher acceptance of the supervisor when they had earlier experienced accurate as opposed to inaccurate treatment by the supervisor. These findings replicate the results of Study 1 and are in accordance with fair process effects of prior studies.

The least significant difference tests also indicated that the differences between the participants who had experienced fair treatment and those who had experienced unfair treatment were not statistically significant in the condition in which participants received a new supervisor. These findings are in correspondence with the results of Study 1 and show that, as predicted, earlier fairness experiences had a bigger impact on both satisfaction and acceptance ratings when participants kept the same supervisor as opposed to received a new one.

In further correspondence with Study 1, inspection of the means (see Table II) revealed some evidence for a contrast effect in the new supervisor condition. That is, although not statistically significant in the least significant difference test, and although acceptance ratings showed no significant effects, $t(38) = -0.87$, n.s., planned comparisons indicated that the satisfaction ratings did approach levels of significance, $t(38) = -1.67$, $p = .05$ (one-tailed), suggesting that participants who reacted to a new supervisor were somewhat more satisfied with the task decision made by this supervisor when they had earlier experienced inaccurate as opposed to accurate treatment by a different supervisor. Thus, although the effect was admittedly weaker than would warrant definitive confirmation, we may conclude that as in Study 1 and in correspondence with the inclusion/exclusion model (Schwarz and Bless, 1992a), there was some evidence for a contrast effect in Study 2. We revisit this issue in the General Discussion.

GENERAL DISCUSSION

Taken together, the findings of both studies show that subordinates who had had fair experiences with a particular supervisor reacted more positively toward subsequent neutral messages coming from old as opposed to new supervisors. Subordinates who had had unfair experiences, however, reacted more negatively toward the subsequent messages from the old as opposed to the new supervisor. Finally, as expected, reacting to old versus new supervisors did not have much of an impact when there had been no explicitly fair or unfair experiences with the old supervisor.⁹ All in all, it seems we can reasonably conclude that the results of both empirical studies provide supportive evidence for our line of reasoning about the influence of temporal fairness effects on people's reactions to new and old supervisors—an important, yet largely neglected area of justice research.

⁹Please note that the "Absent" control condition in the designs of both our experiments was not needed to show the assimilation and contrast effects studied here, and that the social judgment literature typically tends not to include similar control conditions. We think that including this control condition was important, however, as it suggests that the effects we found in our experimental conditions are not caused by other, unintended aspects of the old versus new supervisor manipulations we induced in Experiments 1 and 2. The findings of both our experiments provide supportive evidence for this line of reasoning.

Thus, these results seem to indicate that when employees face great or small changes in management, such as in the case of reorganizations and organizational change, the experiences they have had with particular supervisors will affect to a great extent their reactions to subsequent interactions with the same supervisors. When organizational change results in subordinates facing a new supervisor, however, this fair process effect is less likely to be found when people are dealing with new supervisors rather than old supervisors. This absence of a fair process effect when people start interacting with new supervisors is interesting, we believe, because the strong suggestion from the literature on the fair process effect seems to be that experiences of procedural fairness will nearly always have an influence on people's reactions (Lind and Tyler, 1988; van den Bos, 2005). The results of both studies clearly indicate that subordinates allow new supervisors to start with a clean slate. This discovery can contribute to organizational psychologists' understanding of people's reactions to organizational change in general and new versus old supervisors in particular. Such findings may be especially relevant in temporary systems, which "have become common as a result of more subcontracting, fewer people to handle more diverse assignments, time compression in product development, more use of temporary workers . . . and more 'network' organizations" (Meyerson *et al.*, 1996, p. 169).

In fact, the situation may be even more promising for new supervisors than for old supervisors. That is, findings of both our studies indicate that people who react to new supervisors may do so somewhat more positively when they had earlier experienced unfair as opposed to fair treatment by old supervisors. These trends for contrast effects are in correspondence with the social judgment literature (e.g., Biernat *et al.*, 1997; Gilovich, 1991; Herr *et al.*, 1983; Higgins, 1996; Kahneman and Miller, 1986; Kahneman and Tversky, 1984; Stapel and Koomen, 2001; Strack and Mussweiler, 1997; Tenbrunsel and Messick, 1999) and especially the inclusion/exclusion model (Bless and Schwarz, 1998; Schwarz and Bless, 1992a,b). As noted earlier, the contrast effects reported here were not very strong. These results may have been due to the difficulties people often (though not always) face when comparing different pieces of fairness information with each other (van den Bos, 2002), thereby creating problems for people to start contrasting fairness information to standards of comparison (cf. Schwarz and Bless, 1992a). Additional research on assimilation and contrast in organizational justice definitely is needed, but the findings reported here imply that new supervisors will not suffer and may even profit from subordinates' earlier experiences of unfair treatment because subordinates will not blame new supervisors for their earlier unfair experiences and may even react more positively toward new supervisors than old supervisors.

We should note here that by drawing directly on the Schwarz and Bless (1992a) inclusion/exclusion model, we have interpreted the fair process effect as a special case of the general assimilation effect in human judgment and the

reversed fair process effect as a special case of the general contrast effect in human judgment processes. We should explicitly note that this seems to be an intriguing interpretation and a captivating possibility that may spur future research on the psychology of the fair process effect. It raises the very important question, however, of what role justice plays. We work from the assumption that justice is *not* only a special case of positive events and injustice only a special case of negative events. In contrast, we think that the moral essence of fairness and justice is also important in understanding the fair process effect (see, e.g., Bobocel *et al.*, 1998,b; Skitka, 2002). To put it simply: definitive research is needed to thoroughly examine the psychological difference between a nice and a fair supervisor. We hope that our interpretation of fair process effects as assimilation effects (and reversed fair process effects as contrast effects) will further such attempts as this may have very important implications for social justice theory.

A close inspection of the findings reported here (see Tables I and II) reveals that previous experiences had a bigger impact on subordinates' reactions when these previous experiences had been unfair as opposed to fair. This impact was particularly evident on participants' satisfaction ratings in Study 2, but also on perceived satisfaction in Study 1 and acceptance ratings in Study 2. This relatively enhanced impact of unfair experiences on temporal effects fits with the observation (cf. Folger, 1984) that whereas scientists tend to think and to talk about the psychology of fairness, unfair events affect lay people's cognitions and reactions more strongly than do fair events (Brockner and Wiesenfeld, 1996; van den Bos *et al.*, 1997), suggesting that *unfairness* plays a more prominent role—and that it might be better to talk about the psychology of *unfairness* rather than fairness (Folger and Cropanzano, 1998). Furthermore, research within other areas of social and organizational psychology (e.g., social judgment and person perception) have also found that negative information produces a stronger impact on people's reactions than positive information (e.g., Kahneman and Tversky, 1979; Skowronski and Carlston, 1989). Future research on social justice and injustice may profit from insights developed in these areas of social and organizational psychology.

Earlier we argued that because the majority of justice studies has employed correlational research methods within real-life situations (Tyler and Lind, 1992; van den Bos, 2001b), organizational behaviorists know many of the effects fairness perceptions can have on people in organizations, but that this knowledge may have been achieved at the expense of thorough insights into the fundamentals of organizational justice and organizational behavior (Lind and van den Bos, 2002). We therefore proposed to study the issue of how people react to supervisory change by means of experimental methods. Furthermore, we adopted an experimental research design that would possess good levels of internal validity and experimental realism and acceptable levels of ecological validity (e.g., Lind *et al.*, 1990; van den Bos *et al.*, 1997). For example, we tried to enhance ecological validity and experimental realism by using stimulus materials that had real-life characteristics important for our participants (and debriefing interviews indicated success in that

regard). Our experimental methods provided the advantage of a high degree of control in setting up the kinds of situations we thought necessary for successfully investigating the influence of previous fairness experiences on reactions to new and old supervisors, and as predicted, our research suggests that the psychology of the fair process effect can be understood and explained, at least in part, through processes consistent with the inclusion/exclusion model (Schwarz and Bless, 1992a).

We emphasize the need to exercise care, of course, in generalizing from experimental to organizational and important everyday settings. Although we think it is reasonable to propose that our analysis of the impact of earlier fairness experiences on people's reactions to new and old supervisors is generalizable to other social contexts and operationalizations, future research ought to explore the generalizability of these effects. The current research shows, however, that such effects may occur and do reveal the important role that temporal fairness effects may play in the psychology of reactions to supervisory change. Hopefully, these studies will stimulate future research to explore other methods and psychological theories in organizational settings. With the accumulation of research about the antecedents of people's reactions to fair and unfair events, as in these and in other studies (see, e.g., Ambrose and Kulik, 2001; Brockner and Wiesenfeld, 1996; Cropanzano and Folger, 1989, 1991; Cropanzano and Greenberg, 1997; Folger and Konovsky, 1989; Greenberg, 1990, 1993, 2000; Lind *et al.*, 1990; Lind and Tyler, 1988; Tyler and Lind, 1992), we begin to understand not only when reactions to experiences of fairness appear or disappear, but also why they occur at all and why they can be so potent when they do occur. This knowledge, in turn, promises to advance an understanding of the psychology of fairness issues and of the role of fairness-related phenomena in organizational behavior. To that end, more work on the temporal dynamics of (un)fairness judgments has the potential for providing increased insight into processes and mechanisms likely to operate with increasing frequency as contemporary organizations undergo upheavals of change.

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