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Unfairness at work as a predictor of absenteeism

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Summary This study among 514 security guards examines the relationship between perceptions of unfairness at work and absenteeism during a one-year follow-up. On the basis of previous theoretical work and fragmented empirical evidence, it was hypothesized that distributive unfairness causes absence behavior in a direct or indirect way (through health complaints). Procedural unfairness was hypothesized to cause absence behavior through affective commitment or through health complaints Results of a series of structural equation modelling analyses offer support for the mediating role of health complaints in the relationship between (distributive and procedural) unfairness at work and absenteeism Moreover, our findings demonstrate that perceived unfairness contributes to explaining T2-absenteeism over and above the impact of T1-absenteeism and traditional work-related stressors (i.e., work load and low job control). The theoretical and practical implications of these findings are discussed. Copyright © 2002 John Wiley & Sons, Ltd.

Introduction

Absenteeism is undesirable for employees, their colleagues and employers (i.e., stagnation of work, high costs). It is therefore important to enlarge insight into possible causes, especially work-related ones. This study, among security guards, examines the role of perceived unfairness in the workplace in explaining future absenteeism.

Two explanations for absenteeism

The majority of previous empirical studies that focus on individual work-related causes of absenteeism (Johns, 1997) provides two broad explanations for absenteeism. The first one, the 'withdrawal' explanation, regards absenteeism as withdrawal from (i.e. avoiding) aversive work conditions. For instance, moderate support was found for a relationship between work dissatisfaction and low commitment on the one hand and absenteeism on the other (Farrell & Stamm, 1988). The second explanation for

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absenteeism is that employees are stressed by the work situation. This 'stress' explanation is based on stress-theories (Cooper & Robertson, 1999) assuming that employees are not able to cope with certain work conditions ('stressors') and develop stress symptoms, such as psychosomatic health complaints. Within this tradition, several stressors, such as low perceived social support (Unden, 1996), have shown to be related to absenteeism. Simply stated, employees are thus absent because they temporarily do *not want* to work because of aversive work conditions ('withdrawal' explanation) and/or are *not able* to work because they are stressed by certain work conditions ('stress' explanation).[1]

Unfavorable work conditions

With an eye to the prevention of absenteeism, insight is useful in the specific work conditions that create an aversive and stressful work situation and cause absenteeism. Some studies using a traditional well-established stress model (Karasek's Job Demand–Control Model, 1979) suggest that *high job demands* and *low job control* predict absenteeism (Schechter, Green, Olson, Kruse, & Cargo, 1997; Vahtera, Pentti, & Uutela, 1996), indicating that job design is important for explaining absence behaviors. This model is probably also helpful to explain absenteeism in the present study. That is, the security job requires that employees have to be constantly prepared for problematic events, and have to work during a long uninterrupted period at unfavorable working times (at nights and during weekends). In addition to high job demands, security guards may perceive low job control since both the employer (security firm) and the client who hires the security service use strict and well-defined prescriptions about how the job should be performed.

However, studies by Eisenberger and colleagues (Eisenberger, Fasalo, & Davis-Lamastro, 1990; Eisenberger, Huntington, Hutchison, & Sowa, 1986) have shown the importance of perceptions of how the organization 'behaves' towards its employees Using a social exchange perspective, they argue that absenteeism is most likely to be high when employees feel that the organization is not supporting them. Elaborating on this, we assume that *unfairness at work* may be an important determinant of absenteeism. Fairness issues may be particularly salient in the present study since the security guards have very little insight in the decision-making about the organization of their work (i.e. assignment to clients, scheduling of working hours and the replacement of ill colleagues). Perceptions of unfairness can be easily triggered as security guards may, for instance, wonder whether their colleagues also have to work during weekends and whether working hours are registered accurately by superiors.

In the present study, we focus on the relative value of perceived unfairness at work as a predictor of future absenteeism over and above more traditional stressors (high job demands and low job control) and previous absenteeism, which is usually considered to be the best predictor of future absenteeism (*cf.* Martocchio & Harrison, 1993).

Unfairness at work and absenteeism

Two main categories of fairness are distinguished *distributive* fairness, the evaluation of outcomes received in the exchange relationship with the organization, and *procedural* fairness, the fairness of

[1]It has been argued that employees may report sick in a preventive way, before actually having stress symptoms (Johns, 1997) This type of absenteeism is more positively referred to as 'proactive withdrawal behavior' Using the expression 'withdrawal' in a stress context points to the fact that reporting sick may be—regardless of its specific reasons—denoted 'withdrawal' if viewed as employees' decision to keep their distance from work and the organization In the present article, 'withdrawal' refers to how it is usually used in withdrawal models for absenteeism—referring to employees' avoidance of aversive work circumstances—and not to employees' decision to stay home because of health reasons

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allocation processes or the way superiors arrive at decisions in general (Cropanzano & Greenberg, 1997). Several fairness rules have been proposed, defined as individual's beliefs that a distribution of outcomes or a process is fair when it satisfies certain criteria (Gilliland, 1993; Leventhal, 1980). For instance, an outcome is judged as unfair if it is lower than it should be, compared to some referent (*cf.* Folger and Cropanzano, 1998; Homans, 1961). According to *equity* theory (Adams, 1965), which guided many previous studies of distributive fairness in organizations, individuals expect that the amount they invest in and gain from a relationship should be proportional to what another person invests and gains. Whether a procedure or process is judged as (un)fair may depend on the structuring of the decision-making context (e.g., procedures should be applied *consistently* to persons and over time—Leventhal, 1980) and the interpersonal treatment from superiors (e.g., superiors should be *honest*—Tyler and Bies, 1990).

Although it has been empirically well documented that feelings of unfairness are important determinants of employees' deviant attitudes and behaviors at work, such as employee theft and turnover intention (Cropanzano & Greenberg, 1997; Finn & Lee, 1972; Folger & Cropanzano, 1998), unfairness is not often connected to absenteeism. Moreover, studies that have been conducted are limited, since they usually focus on inequity (distributive unfairness) rather than procedural unfairness. These studies have shown that employees who felt relatively disadvantaged were more frequently absent than those who perceived equity at work (Dittrich & Carrell, 1979; Geurts, Buunk, & Schaufeli, 1994). As far as we know, only one study connected procedural fairness to absenteeism. Gellatly (1995) found a negative relationship between interactional unfairness (i.e. unfair interpersonal treatment from superiors) and absenteeism in a study among hospital workers. Unfortunately, these studies do not allow a comparison of the impact of both fairness measures on absence behavior. Although distributive and procedural unfairness are considerably related to each other (*cf.* Organ & Ryan, 1995), we assume that both have unique relationships to absenteeism, which may be explained by 'withdrawal' as well as 'stress' processes.

'Withdrawal'

Previous studies that studied unfairness and absenteeism seem to start mainly from the idea that unfairness is considered to be an aversive work condition that makes that employees temporarily do not *want* to work ('withdrawal' explanation). Using Adams' equity theory (1965), absenteeism as a reaction to distributive unfairness is usually regarded as an equity restoring mechanism: by being absent, employees lower their inputs without changes in their main outcome (salary). Additionally, Adams stated that by being absent employees may temporarily 'leave the field' (i.e. break off the exchange relationship). Absenteeism as a withdrawal reaction to unfairness may thus be interpreted as withdrawal from *work obligations*, to lower the inputs in the exchange relationship, or as withdrawal from the *organization*, to weaken the exchange relationship with the organization (*cf.* work withdrawal and job withdrawal—Hanisch & Hulin, 1990)

Although Adams mentioned 'leaving the field' as a possible reaction to inequity, we believe that procedural unfairness particularly may cause withdrawal from the organization. Compared with distributive unfairness, procedural unfairness appears to evoke primarily organization-oriented responses (e.g. low trust in superiors) probably because the way in which decisions are usually made provides information about an organization's capacity to act fairly (Sweeney & McFarlin, 1993). Perceived procedural unfairness has been shown to elicit several forms of withdrawal attitudes, such as propensity to turnover (Dailey & Kirk, 1992) and reduced commitment to the organization (Sweeney & McFarlin, 1993). Absenteeism as a consequence of procedural unfairness may thus be chiefly interpreted as a way of weakening the bond with the organization This reasoning fits well with Gellatly (1995)

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who found that the relationship between interactional fairness and absenteeism was completely mediated by affective commitment, suggesting that procedural unfairness indeed lowers the employee's attachment to the organization and eventually evokes physical withdrawal from the organization. Thus, in line with a 'withdrawal' explanation, we predict that:

Hypothesis 1: Distributive unfairness has a direct, positive effect on absenteeism, even when controlling for the impact of job demands, job control and previous absenteeism.

Hypothesis 2: Procedural unfairness has an indirect, positive effect on absenteeism through its negative impact on affective commitment, even when controlling for the impact of job demands, job control and previous absenteeism.

'Stress'

The second explanation for absenteeism, the 'stress' explanation, focuses on the employee's reduced ability to go to work, due to experienced health problems caused by stressful work conditions. In only one study on absenteeism, perceived unfairness has been regarded as a stressor that impairs the employees' health. Hendrix and Spencer (1989) found that the most important predictors of absenteeism, flu and a cold, were related to distributive unfairness (pay inequity). However, several studies (e.g., Van Horn, Schaufeli, & Enzmann, 1999; Bakker, Schaufeli, Sixma, Bosveld, & Van Dierendonck, 2000), which did *not* focus on absenteeism, showed that employees who indicated to invest more in the relationship with clients or the organization than they received in return had higher levels of burnout Considerably less attention has been paid to procedural unfairness as a predictor of stress reactions, although a similar relationship has been recently suggested by Schmitt and Dörfel (1999). They found, in a study among 295 factory employees, that procedural unfairness was related to the number of days employees *felt sick* at work and self-reported sickness absence.

Both distributive (inequity) and procedural unfairness may foster stress reactions but the underlying processes may differ somewhat. Following propositions from cognitive dissonance theory (Festinger, 1957), Adams argued that the presence of inequity (distributive unfairness) creates *tension* in individuals. Although he mentioned several means to reduce inequity (e.g., lowering investments, leaving the field), employees may not always be in the position or otherwise capable to actually eliminate inequity. For instance, strict job prescriptions for the security guards in the present study may hinder lowering of investments. Persisting tension and distress as a result of inequity may increase employees' arousal level (Markovsky, 1988) and make them more susceptible to diseases (Hendrix & Spencer, 1989).

As a consequence of procedural unfairness employees will, probably more than when they perceive inequity, realize that the unfair treatment is structural and that superiors are responsible for the unfairness (Folger & Cropanzano, 1998) Since unfair procedures reduce chances of obtaining fair outcomes in the long run (Brockner and Siegel, 1996), employees may develop feelings of hopelessness. Moreover, they may become upset and angry (*cf.* Weiss *et al.*, 1999) which may prompt some to take action to stop the unfairness (i.e. conflicts), wasting lots of energy. It can be speculated that in particular energy is spent by employees who used to be proud of being a member of the organization (*cf.* group-value theory—Lind & Tyler, 1988) and who hope that things may become fairer in the future. In addition, procedural unfairness may negatively affect employees' self-worth (*cf.* Smith, Tyler, Huo, Ortiz, & Lind, 1998) as they may infer from their bad treatment by superiors that they are judged to be unvalued members of the organization. Low self-esteem has been related to several health complaints (e.g., Ganster & Schaubroeck, 1991) and may impede coping with (other) work stressors. Thus, in line with 'stress' explanations, we predict that:

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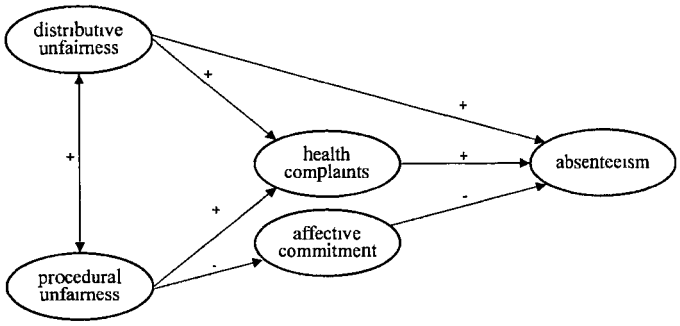

Figure 1. The Unfairness–Absenteeism model

Hypothesis 3: Distributive and procedural unfairness have an indirect, positive effect on absenteeism through their impact on health complaints, even when controlling for the impact of job demands, job control and previous absenteeism.

The three hypotheses are summarized in Figure 1. Note that the present study investigates whether unfairness is predictive of future absenteeism over and above more traditional work-related stressors and past absenteeism. Job demands, job control, as well as past absenteeism, are thus presumed predictors too and are included in the model as well. For reasons of clarity, these variables are not depicted in Figure 1.

Method

Respondents and procedure

Questionnaires were sent to all male employees ($n = 946$) of one district of a security firm in Belgium. A total of 605 security guards filled out and returned the questionnaire (response = 64 per cent). It was decided to delete the data of the participants who had sent back incomplete questionnaires, reducing the sample size to 514 employees. The mean age of the security guards was 42 years ($SD = 10$) and mean organization tenure was seven years ($SD = 4.5$). Their daily work activities primarily concern the guarding of company offices, public buildings, and institutions. The research was based on voluntary participation. Respondents were asked to fill out a questionnaire concerning their 'perception of work'. In advance, we had put a code on each questionnaire that allowed us to connect employees' responses to their registered absence frequency rates. The anonymity and confidentiality of the data was emphasized. This procedure, which was beforehand adopted by management and the employees council, was described in staff magazines and in a letter accompanying the questionnaire.

Measures

Absenteeism

Absenteeism data were retrieved from the company's computerized registration system. We used absence frequency measures—the number of absence spells—which have been frequently used in other studies on absenteeism (e.g., Harvey & Nicholson, 1999), and which have less psychometric

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shortcomings than absence duration (time lost) measures (i.e. Hammer & Landau, 1981). We agree with several authors that both absence frequency and absence duration may include 'voluntary' absences—that are presumed to refer to employees' desire to avoid work—as well as 'involuntary' absences (*cf.* Martocchio & Harrison, 1993). Two absence measures were calculated: employees' frequency of absence spells in the year preceding the questionnaire (previous absenteeism, Time 1: $M = 0.61$; $SD = 0.88$) and employees' absence frequency in the year following the questionnaire (future absenteeism, Time 2: $M = 0.70$; $SD = 0.89$). Thus, on average, security guards were absent less than once a year. This low absence rate may be explained by the relatively strict absence policy in Belgium, in which legitimate absences (*cf.* Johns, 1997; Harvey & Nicholson, 1999) require physician statements.

Health complaints

Health complaints were assessed using the short-version of the VOEG (Dirken, 1967; Martens, Nijhuis, Van Boxtel, & Knottnerus, 1999), a well-validated 23-item Dutch questionnaire that measures psychosomatic health complaints. Participants were asked to indicate with 'yes' or 'no' the experience of health problems in the previous 12 months Example items are: 'Do you often feel pain in your stomach?' and 'Do you often feel nervous?' Afterwards, all answers were coded such that higher scores referred to more health complaints. The internal consistency of the scale was good—Cronbach's alpha = 0.87.

Affective commitment

Affective commitment was assessed with a 5-item sub-scale of a questionnaire that originally includes three components of organizational commitment (Meyer & Allen, 1990). We used a validated Dutch translation of this questionnaire (De Gilder, Van den Heuvel, & Ellemers, 1997; Ellemers, De Gilder & Van den Heuvel, 1998). An example-item is: 'I feel emotionally attached to this organization' (1 = not at all, 5 = to a large extent). Cronbach's alpha of the affective commitment scale was 0.90.

Distributive unfairness

Distributive unfairness was assessed with two self-constructed scales referring to inequity (Adams, 1965). Both scales include five items and focus on material and immaterial outcomes, respectively. Pilot interviews among representatives of the sample revealed that particularly *salary* as a material outcome and *appreciation by superiors* as an immaterial outcome were relevant for security guards. Guards were asked to compare their situation with colleagues (three items) and with earlier times (two items). In the items with *colleagues* as a comparison referent, 'workload', 'efforts at work', and 'willingness to do something for a colleague' were used in succession as input variables (*cf.* Adams, 1965). 'Workload' and 'difficulty of work' were used as input variables in the items that included *earlier times* as a comparison referent. An example item relating to salary is: 'What do you think of your salary, when you compare your workload with your colleagues' workload?' A 5-point scale was used, ranging from 'I find my salary much too low' to 'I find my salary much too high'. An example item relating to appreciation from superiors is: 'What do you think of the appreciation you receive from superiors, when you compare the difficulty of your work with the difficulty of your work in earlier times?' Afterwards, items were coded such that higher scores referred to more distributive unfairness. The internal consistency was good for distributive unfairness regarding salary ($\alpha = 0.83$), as well as for distributive unfairness regarding appreciation from superiors ($\alpha = 0.82$).

Procedural unfairness

Procedural unfairness was assessed with two self-constructed scales (each five items) that refer to several procedural fairness rules or principles and are based on earlier work by several authors

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(e.g., Leventhal, 1980; Thibaut & Walker, 1975; Tyler & Bies, 1990; Moorman, 1991). The first scale measures *structural* procedural fairness and refers to how the decision-making context is structured. The following items that refer to structural procedural criteria (between brackets) were included: (1) Superiors at [...] act purely out of personal self-interest (bias suppression); (2) At this company, each employee is treated in the same way (consistency); (3) Superiors aim to be well-informed before they take any decisions (accuracy); and (4) At this company, employees' complaints are taken seriously (correctability); At [...], due consideration is given to employees' viewpoints (consideration of views). Employees had to indicate to what extent these statements were characteristic for their organization on a 5-point scale (ranging from '1' = not at all, to '5' = to a large extent).

The second scale measures *social* procedural or *interactional* fairness and refers to the quality of interpersonal treatment employees receive from their superiors. Employees were asked to answer the following questions about the way they are treated by superiors: (1) Do superiors inform you in time about changes in work? (timely feedback); (2) Do superiors provide you with a good explanation if something turns out wrong for you? (account giving); (3) Do superiors treat you in a respectful way? (standing); (4) Do superiors show that you are valuable for the organization? (standing); and (5) Do you feel that superiors communicate in an honest and straightforward manner? (openness) Employees had to indicate which answer best reflects their opinion on a 5-point-scale ranging from 1 = 'not at all' to 5 = 'to a large extent'. Afterwards, items were coded such that higher scores referred to more procedural unfairness. The internal consistency was good for structural ($\alpha = 0.81$) as well as social ($\alpha = 0.86$) procedural unfairness.

Job demands

Job demands were assessed with two scales based on a reliable and validated Dutch questionnaire (Van Veldhoven & Meijman, 1994; De Jonge, Bosma, Peter, & Siegrist, 2000). Both scales consist of five items, and each scale measures somewhat different quantitative aspects of workload. The first scale refers to content and amount of work tasks, for example: 'Do you have to accomplish many work tasks?' The internal consistency was moderate ($\alpha = 0.64$). The second scale refers to time pressure. An example-item is: 'Do you have problems with the work pace?' ($\alpha = 0.73$). Participants responded on a 4-point scale ranging from (1) 'never' to (4) 'always'.

Job control

Job control was assessed with two scales, each including three items that were also based on Van Veldhoven and Meijman's (1994) questionnaire. The first scale indicates employees' control regarding job content and solving of job-related problems, for instance: 'Are you allowed to decide by yourself how to perform your job?' Cronbach's alpha was 0.60. The second scale indicates employees' control regarding the timing of work tasks. An example-item is: 'Are you allowed to decide by yourself the order of your daily work activities?' ($\alpha = 0.72$). Participants used the same answer categories as for job demands.

Analyses

All three hypotheses were tested simultaneously with structural equation modelling (SEM) analyses, using the AMOS computer program (Arbuckle, 1997). The hypothetical model contains 12 manifest variables. The correlation coefficients between the variables are displayed in Table 1. As can be seen, intercorrelations between the two distributive fairness measures on the one hand and the two procedural fairness measures on the other are of moderate magnitude. As expected, intercorrelations between both measures of distributive fairness and intercorrelations between both measures of

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procedural fairness are considerably higher. We intended to construct latent variables of distributive and procedural unfairness, which was possible because of these high correlations. According to the same line of reasoning, we decided to construct latent variables of job demands and job control. Health complaints and affective commitment are included as manifest variables in our model. According to Jöreskog and Sörbom (1993), it is acceptable to include manifest instead of latent variables if these are indicated by reliable and validated instruments. The analyses included a comparison of two competing models, which can be described as follows:

1. The Direct Effects Model, that only includes direct paths from job characteristics (job demands and job control) and unfairness (distributive and procedural) to T2—absence frequency, and from health complaints, affective commitment and T1 absence frequency to T2—absence frequency.
2. The Indirect Effects Model, in which job characteristics (job demands and job control) and unfairness (distributive and procedural) influence absence frequency only indirectly, through health complaints and affective commitment.

In the present series of SEM-analyses, the adjusted goodness-of-fit index (AGFI; Jöreskog & Sörbom, 1993), the incremental fit index (IFI; Bollen, 1989), the non-normed fit index (NNFI; Bentler and Bonett, 1980), the comparative fit index (CFI; Bentler, 1990), and the root mean square error of approximation (RMSEA; Jöreskog and Sörbom, 1993) are utilized. In general, models with fit indices larger than or equal to 0.90 and an RMSEA smaller than 0 08 indicate a good fit. Chi-square goodness-of-fit statistics are used to compare different competing models.

Results

Descriptive statistics

Table 1 shows the mean values, standard deviations, and intercorrelations of the variables included in this study.[2] Among others, this Table shows that distributive unfairness, as well as procedural unfairness, significantly relates to psychosomatic health complaints and affective commitment. Furthermore, it can be noticed that psychosomatic health complaints and retrospective absenteeism correlate significantly and positively with prospective absenteeism.

Model testing

Table 2 summarizes the results of SEM–analyses of the two competing models. As can be seen, two fit indices—the AGFI and the NNFI—of the first model (Direct Effects Model) are below 0.90, indicating a sub-optimal fit. Moreover, the RMSEA value is higher than 0.08. Browne and Cudeck (1993) suggest that a value of 0.05 of the RMSEA indicates a close fit and that values above 0.08 represent reasonable errors of approximation in the population. Remember that the first model (M_1) includes only *direct* paths from job design measures (job demands and job control) and unfairness (distributive and procedural) to absence frequency and from psychosomatic health complaints and commitment to absence frequency. Thus, results suggest that *indirect* paths (from job design and unfairness to health

[2]Neither distributive unfairness and procedural unfairness nor job demands and job control produced an interaction on absenteeism

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Table 1. Means, standard deviations, and intercorrelations of all variables included in the study, $n = 514$

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1. Work load (content and amount)	1.97	0 40	—											
2 Work load (time pressure)	1.86	0.48	0.76*	—										
3. Low job control (content and problem solving)	2.52	0 67	0.12*	0.13*	—									
4. Low job control (timing work tasks)	2.78	0 74	0 17*	0.24*	0 64*	—								
5. Distributive unfairness (salary)	3 56	0.50	0.35*	0.33*	0 06	0.17*	—							
6. Distributive unfairness (appreciation from superiors)	3 40	0 46	0.33*	0.30*	0 16*	0 24*	0.61*	—						
7 Procedural unfairness (structural)	3 49	0.88	0.12*	0.15*	0.20*	0.20*	0.33*	0.44*	—					
8. Procedural unfairness (social 'interactional')	3 49	0 89	0.15*	0.20*	0 21*	0 23*	0.32*	0.44*	0.75*	—				
9. Health complaints	4.89	4.67	0.26*	0 30*	0.16*	0.16*	0.31*	0 29*	0 26*	0.28*	—			
10. Affective commitment	2.78	0.97	−0 04	−0 06	−0 19*	−0 15*	−0 15*	−0 09	−0.33*	−0 38*	0 18*	—		
11. Absence frequency (retrospective)	0.61	0 88	0.13*	0 14*	−0 03	0 04	0 17*	0.10†	0.11†	0 15*	0.33*	0.00	—	
12. Absence frequency (prospective)	0.70	0.89	0.08	0 06	−0 03	−0.02	0 08	0 05	0.06	0 05	0.24*	−0.08	0 29*	—
			(0.08)	(0 06)	(0 02)	(0.00)	(0.14†)	(0.09)	(0.08)	(0 09)	(0.26*)	(−0 10†)	(0 30*)	

Note: *$p < 0\,01$, †$p < 0\,05$, correlations between the brackets refer to the reduced subsample.

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Table 2. Goodness-of-fit indices of competing structural models, $n = 514$

Model	χ^2	*df*	AGFI	RMSEA	IFI	NNFI	CFI
M_0 Null model	2051.55	66	0 47	0.24	—	—	—
M_1· Direct effects model	246.88	43	0 88	0.10	0.90	0 84	0.90
M_2. Indirect effects model	91 35	39	0.95	0.05	0.97	0 96	0 97
M_3. Revised model	105 45	44	0.94	0 05	0.97	0 96	0 97

Note. χ^2 = chi-square, *df* = degrees of freedom, AGFI = adjusted goodness-of-fit index, IFI = incremental fit index, NNFI = normed fit index, CFI = comparative fit index

complaints and commitment) have to be included in the model in order to find an acceptable fit between the model and the data. Indeed, the chi-square difference test shows that the fit of the second model (that included only indirect paths) is significantly better than the fit of the first model, Delta χ^2 (4) = 155.53, $p < 0.001$. Moreover, all values of the fit indices of the indirect effects model indicate a close fit between model and the data.

More detailed examination of the AMOS output of the Indirect Effects model (M_2) revealed that, regarding the effects of the mediator variables on absence frequency, the relationship was significant for psychosomatic health complaints, but *not* for commitment. Furthermore, results show that—as hypothesized—only procedural unfairness shows a substantial relationship with commitment. Surprisingly, there is a *positive* relationship (not very strong, but significant) between distributive unfairness and commitment. In addition, job demands, distributive unfairness, and procedural unfairness show positive relationships with psychosomatic health complaints, as expected. There is no significant path between job control and health complaints. The significant relationships are in the expected direction.

On the basis of the results of the two competing models a Revised Model (M_3) was built that is similar to the Indirect Effects Model (M_2) but excludes the non-significant paths Since the positive correlation between distributive unfairness and commitment is most probably a method artefact (Maassen & Bakker, 2000), considering the negative intercorrelation between these variables (see Table 1), this path was deleted as well. This Revised Model fits well to the data and is preferred because it is more parsimonious and gives a clearer picture of the paths that do contribute to explaining variance in mediator and criterion variables. Amos provides information of the amount of variance (R^2) that is explained in the endogenous variables by the modelled paths (i.e. structural equation relationships). The revised final model explains 15 per cent of the variance in psychosomatic health complaints, 17 per cent in commitment, and 10 per cent in prospective absence frequency.

As can be seen from Figure 2, Hypothesis 1 is *not* confirmed. There is no direct relationship between distributive unfairness and prospective absence frequency. Hypothesis 2, predicting that procedural unfairness influences prospective absenteeism through its impact on affective commitment, is also *not* supported. Although procedural unfairness is, as expected, negatively related to affective commitment, there is no significant relationship between affective commitment and prospective absence frequency. In fact, results from the present study only confirm Hypothesis 3, that stated that (1) distributive as well as procedural unfairness correlate positively with psychosomatic health complaints, and (2) two types of unfairness influence prospective absence frequency through their influence on psychosomatic health complaints. In addition, the model shows that prominent job stressors (i.e. workload and low job control) and retrospective absenteeism do *not* make the effects of unfairness disappear. Moreover, job stressors do not have a stronger impact on psychosomatic health complaints and on affective commitment compared to both fairness indices. Thus, over and above traditional stressors, unfairness directly influences psychosomatic health complaints and affective commitment, and indirectly influences prospective absence frequency.

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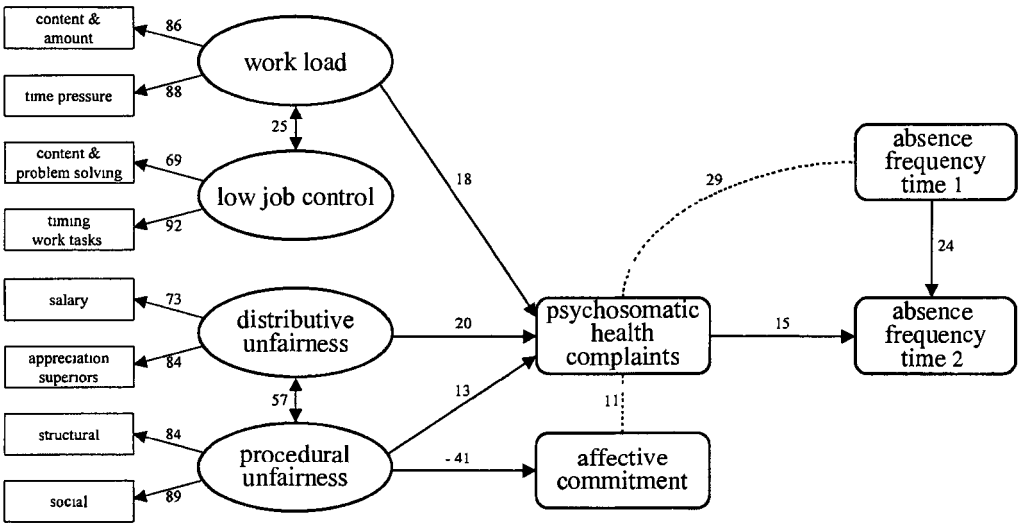

Figure 2. Standardized solution of the Unfairness–Absenteeism model, $n = 514$. (Note: dotted lines represent error covariances between variables For reasons of clarity, the following correlations have not been included in the figure: distributive unfairness—low job control (0.28), procedural unfairness—low job control (0.29), procedural unfairness—workload (0.21); and distributive unfairness—workload (0.46)

Additional analyses: mediation?

Strictly speaking, we found support for an indirect effect between unfairness and absenteeism, through psychosomatic health complaints, instead of a *mediating* effect of psychosomatic health complaints (Baron and Kenny, 1986). That is, the independent variables in our study (the fairness measures) are only marginally and not significantly related to the dependent variable: prospective absenteeism. Results suggest that psychosomatic health complaints are the most important predictor of prospective absenteeism in our study, and that unfairness at work may foster the development of these health complaints.

An explanation for the fact that we found no significant correlations between work characteristics and prospective absenteeism may lie in the distribution of absence data. Similar to absence profiles of other companies (e.g., Fissher, Middel, & Vinke, 1991) there seem to be two groups in the present study. About 90 per cent of our sample consists of employees that were between 0 and 5 times absent for a short, moderate or long period (mean absence duration = 5 days) and about 10 per cent of our sample consists of employees that were only absent once for a very long period—more than six weeks (mean absence duration = 104 days).

Inclusion of respondents that have one very long absence period may lower correlations between work attitudes—such as perceived unfairness—and employees' frequency of absence spells. That is, regardless of the specific reasons of this long absence spell—motivational or non-motivational, due to work (e.g., burnout) or not (e.g., broken leg)—it is simply impossible for employees to report more frequently sick because of work problems if they are already absent. Moreover, one may wonder whether this group is able to make judgments about the current course of events at work, as they have been at home for such a long period.

Following this reasoning, further analyses were carried out to examine (1) whether the correlations may be higher in a reduced sample ($n = 466$) that excludes respondents with one very long period of absence, and (2) whether support is found for a mediating effect of psychosomatic health complaints in this sub-sample. As can be seen in Table 1 (i.e. correlations between brackets), in this sub-sample

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correlations between work attitudes—unfairness and commitment—and prospective absence frequency do slightly increase. These results suggest that perceived unfairness is somewhat less predictive of absence frequency for the sample as a whole that included employees with one very long absence spell. Further analyses revealed that relationships in the reduced sample are all mediated by psychosomatic health complaints, thus again confirming Hypothesis 3.

Discussion

The central aim of this study was to investigate the extent to which perceptions of unfairness at work contribute to explaining the absence behaviors of employees over and above effects of other unfavorable work conditions and previous absenteeism. In order to shed some light on employees' motives to be absent as a consequence of perceived unfairness, two mediating processes as well as a direct relationship were tested in our model. Consistent with absence explanations derived from earlier studies (e.g., Johns, 1997), we assumed that perceived unfairness at work may be (1) a reason to temporarily *withdraw* from the organization, as employees do not want to be at work, and (2) a *stressor* that evokes stress symptoms, as a result of which employees are less able to attend to work. In line with the 'withdrawal' explanation, a direct relationship was predicted between distributive unfairness and absenteeism, and an indirect relationship was predicted between procedural unfairness and absenteeism, through affective commitment. In line with the 'stress' explanation, we predicted that the relationship between both unfairness measures would be mediated by health complaints. SEM analyses did only support an indirect relationship between unfairness and absenteeism, through psychosomatic health complaints. These findings thus support a 'stress' explanation and suggest that (1) employees feel stressed or ill from perceived unfairness, and (2) this motivates them to report sick as the work situation disables them.

In addition to the theoretical contribution mentioned above, the present study provides evidence for the contention that different components of the fairness concept are important for predicting absence behavior. Our findings expand previous research on the health of employees (e.g., Bakker *et al.*, 2000) and their absenteeism (e.g., Gellatly, 1995; Geurts *et al.*, 1994) that did not include different aspects of the fairness concept simultaneously, and was usually limited to perceived inequity. Specifically, we found that material and immaterial distributive unfairness, as well as structural and social procedural (interactional) unfairness, explain health complaints of the security guards and indirectly affect their absenteeism. Thus, not only employees' perception that received salary and appreciation are comparatively too low, but also their perception that superiors make decisions in an unfair way foster the development of psychosomatic health complaints. We believe that employees become tense and this eventually weakens their immune system (Hendrix & Spencer, 1989) if they do not receive fair outcomes in return for their investments. The perception that an unfair treatment is imbedded in the policy of the organization, may lead to feelings of hopelessness, anger at superiors, and protests against the system, and/or it may negatively affect employees' self-worth. Persisting tension, distress, investments to improve organizational fairness and worries about one's value at work may be exhausting and lead to psychosomatic health complaints. Future research is needed to further investigate specific processes underlying a relationship between different types of fairness and impaired health.

Our findings also demonstrate that perceived unfairness at work contributes to the explanation of future absence behavior *over and above* the impact of previous absenteeism and traditional work-related stressors. More specifically, unfairness measures explained a unique proportion of the variance in health complaints (i.e. the only significant predictor of absenteeism) even when (high) job demands

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and (low) job control were included in the model as well. Thus, stressful work conditions that make employees report sick include not only unfavorable job designs or characteristics of work tasks *but also* an unfair treatment of employees by the organization. In line with earlier studies showing that absenteeism is higher when employees feel that the organization is not supporting them (Eisenberger *et al.*, 1986, 1990), our findings suggest that it is important to consider employees' evaluations of their relationship with the organization. Apparently, employees have certain expectations of 'social behaviors' of the organization towards its employees—including a fair treatment—and feel and report sick more frequently if they experience that the organization falls short of these expectations. This viewpoint agrees with theories on psychological contracts that emphasize the importance of the employee's beliefs regarding terms and conditions of the exchange relationship with the employer, and that generally state that violation of the psychological contract negatively influences the employee's attitudes, feelings, and behaviors (e.g., Rousseau and Parks, 1993).

Interestingly, results revealed that high job demands and low job control *do* moderately correlate with both distributive and procedural unfairness. These relationships were not predicted, but may not be so surprising however. It is, for instance, likely that employees' perceptions that job demands are too high or job control is too low coincide with their feeling that the organization does not treat its employees in a fair way. That is, demanding work conditions may evoke negative thoughts about the organization concerning fairness issues, such as 'the organization is only driven by self-interest' or 'considering my workload in comparison to my colleagues' workload, the appreciation I receive is much too low'. However, despite the probability that traditional work stressors may influence fairness judgments (or the other way around), the present study demonstrates that both made unique contributions to explaining health complaints and indirectly absenteeism.

Out of line with the 'withdrawal' explanation and inconsistent with earlier studies (e.g., Gellatly, 1995; Geurts *et al.*, 1994), neither a direct relationship between distributive unfairness and absence frequency, nor a mediating relationship between procedural unfairness and absence frequency (through affective commitment) was found. Although employees, who perceive procedural unfairness, report (as predicted) to be less committed to the organization, which may be viewed as *psychological* withdrawal, this apparently did not motivate them to physically withdraw from work by being absent. Thus, it seems that results of our study do not agree with the idea that employees also report sick if they do not suffer from health complaints but just want to withdraw from work and the organization.

Why didn't we find support for our so-called 'withdrawal' explanation? A possible explanation is that this particular occupational group, security guards, is a special group in that they not only find themselves in an exchange relationship with the organization (i.e. the security firm) but also with the client (i.e. the company that needs security). As their absences also inconvenience the client, security guards may only report sick when they are really feeling ill. They may demonstrate other behavior than absenteeism—behavior that only affects the organization—to express their displeasure with unfair treatment by the organization. For instance, they may withhold participation in organizational events, protest against management, or take away organizational properties (e.g., Greenberg, 1993).

A second explanation for the fact that we only found support for the stress-explanation may have to do with the absence policy in Belgium. Absence researchers have emphasized the importance of social factors, as many studies have shown that employees' individual decisions to report sick are to a considerable extent influenced by the social context, such as absence norms and policies (e.g., Chadwick-Jones, Nicholson, & Brown, 1982; Gellatly, 1995; Johns & Xie, 1997). As employees in Belgium are only excused to be absent if absences are legitimated by a medical confirmation from their physician, it may have been difficult for the security guards in the present study to report sick *without* having any health complaints. An underestimation of effects may be a consequence of this relatively strict absence policy. Indeed, it can be noted that in the present study absence figures are relatively low and that correlations between all psychological factors—perceived unfairness as well as traditional work-related

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stressors—and absenteeism are relatively low as well. Thus, the possibility exists that employees do want to be absent because of perceived unfairness and without having any health complaints, but that the absence policy holds them back from actually doing this

An interesting and often cited study by Smith (1977) gives empirical evidence for the idea that situational constraints may lead to higher correlations between work-attitudes and behavior when that behavior is more under the control of the employee. Smith examined the relationship between work attitudes and work attendance (the opposite of absenteeism) of managerial employees in Chicago and New York on a specific day in a natural field setting. It was predicted that in Chicago—suffering from a snowstorm—work attitudes would be more strongly related to attendance behavior than in snow-free New York. Since occasional absenteeism—such as a heavy snowfall—was not subject to financial penalty and is relatively free of social and work-group pressure, it can be viewed as being under the general control of the individual. Indeed, results showed that correlations between attitude measures and attendance in Chicago were highly significant (r ranged from 0.36 to 0.60; $p < 0.05$), whereas in New York none of these correlations reached significance. Referring to these results, it would be interesting to test our model in organizations with more tolerant absence policies to investigate whether we find more support for the 'withdrawal' explanation.

The present study has some limitations. First, the analyses in the current study are correlational and thus do not confirm causality. Thus, our use of expressions such as 'impact' and 'effect' is strictly speaking not entirely correct. Since work perception measures and psychosomatic health complaints were measured simultaneously, results of the present study are tentative until confirmed by a longitudinal study. However, two strong points of the present study are that we used absence frequency figures collected during the year *following* the questionnaire, and that absence data were retrieved from the company's computerized registration system. Thus, our procedure avoided some common method variance problems most cross-sectional studies suffer from.

A second limitation is that we only tested our model among a specific group of professionals, namely male security guards in Belgium. Earlier research has provided evidence for at least parts of the model (i.e., the relationship between distributive unfairness and health complaints, and between distributive unfairness and absence frequency) in studies among other occupational groups (e.g., Geurts *et al.*, 1994), but a test of the entire model in other samples still stands out. The results thus need to be replicated in other occupational groups and cultures, and in a population that also includes females, to establish external validity of the conclusions. That is, different groups (i.e. differences in culture, gender, job position, organization branch) may differ in absence norms (*cf.* Harvey & Nicholson, 1999; Johns and Xie, 1997) as well as in the value they attach to (violation of) specific fairness rules (*cf.* Steiner & Gilliland, 1996). These differences may influence the relationship between perceived unfairness and absenteeism.

Despite these limitations, the present findings may have implications for future research and practice. In a nutshell, this study shows that different components of the fairness concept are important for predicting security guards' absence behavior and well-being in general (affective commitment and psychosomatic health complaints). Building on this knowledge, interventions may be designed to improve relationships between employees and the organization by trying to prevent violation of fairness criteria. For example, to reduce perceived *distributive* unfairness, it is important that employees perceive a balance between their investment and outcomes (*cf.* Adams, 1965). Superiors may try to improve this balance by discussing employees' view of their investments (i.e., is working during weekends viewed as an additional investment or as part of the normal work task?), what they expect exactly in return, and whether the organization is willing and able to meet these expectations (*cf.* psychological contract—Rousseau & Parks, 1993). Furthermore, as comparison processes (with colleagues and earlier times) play a role in employees' evaluation of the balance (e.g., Homans, 1961), superiors may regularly keep up with the investments and outcomes of individual employees in order to give them

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fair rewards, especially when rewards are scarce (i.e., during economic downturns) and when individuals' investments change (i.e , during times of mergers or changed job specifications).

In reducing perceived *procedural unfairness*, superiors may improve the way decisions are made in the organization as well as the interpersonal treatment employees receive when these decisions are made. From earlier studies we know that it is possible to make organizational procedures more fair (Cropanzano and Greenberg, 1997). Superiors could try, for instance, to be (more) consistent and accurate (Leventhal, 1980) in making decisions and may increase employees' insight in the way decisions are made. Furthermore, it is important that superiors be straightforward and open in their communication with employees and be able to give them the feeling that they are respected members of the organization. The prevention of perceived unfairness at work will thus require a serious effort from superiors. However, it will eventually be profitable for organizations since this increases the chance of reducing absence which can be a very costly problem for employers (e.g., Harvey and Nicholson, 1999).

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