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Social Comparisons and Absenteeism: A Structural Modeling Approach¹

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In this study a social comparison model is constructed that predicts objectively recorded absence frequency among male Dutch blue-collar workers from a metal factory in the Netherlands. By employing LISREL, the model is developed (tested and revised) in Plant North ($N = 254$), and successfully cross-validated in Plant South ($N = 199$). The study demonstrates the impact of two social comparison processes upon absenteeism. Absenteeism is the result of: (a) the perception that one is less well-off than one's colleagues on several job aspects, and (b) the adjustment of one's personal absence norm to that of the work group. In addition, our study reveals that, rather than being absent or having tolerant absence norms, employees may develop feelings of resentment in response to perceived inequity and a tolerant group absence norm. It is concluded that social comparison theory enhances our understanding of absenteeism.

In many Western countries absenteeism has become a major problem over the past decades. The majority of comparative studies indicate that absence rates in the Netherlands are consistently in the upper region of the international absence rank (cf. Prins, 1990). Social security regulations in the Netherlands are primarily responsible for the comparatively high incidence and duration of absences. In contrast to most other industrialized countries, Dutch employees do *not* need a medical certification in order to receive sickness benefits (unless the illness lasts longer than about 2 weeks) and most employees receive full income replacement during their sickness period.³ As a consequence,

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³However, on January 1, 1994, the "Reduction of Sick Leave Act" has been brought into effect by the Dutch government, making absenteeism more financially harmful for the employer and, as a consequence, probably for employees as well.

particularly in the Netherlands, the act of reporting sick is rather uncomplicated and reflects primarily a *decision* made by employees themselves.

The high absence rates have triggered many studies examining factors that might influence the decision of employees to stay away from their work. Despite the meaningful relationships that have been shown to exist between absenteeism, on the one hand, and organizational, job, and individual factors, on the other hand, there are some theoretical and empirical limitations to research in this area. First, in many absence studies the theoretical integration of research findings leaves much to be desired. This is due to an inductive research strategy, in which empirical findings from specific studies are used to construct absence models with the prime objective of maximizing the variance explained in absenteeism. However, a deductive approach, in which more general theories are used to generate a limited number of specific testable hypotheses, may contribute more to our understanding of absenteeism than an inductive approach. Second, in many studies absenteeism has been assessed cross-sectionally by means of self-reports (Brooke & Price, 1989), or the absence data were obtained during a period *prior* to, rather than *following*, the collection of questionnaire data (Oldham, Kulik, Ambrose, Stepina, & Brand, 1986). In addition to the fact that the reliability and validity of self-report measures of absenteeism are seriously questioned (cf. Mueller, Wakefield, Price, & Curry, 1987), cross-sectional and retrospective designs do not allow drawing unequivocal causal conclusions. Third, absence research focuses too little attention upon the social psychological processes that might be relevant. Although some studies have provided evidence for the impact of social factors upon absenteeism, for example group absence norms (Steers & Rhodes, 1978), the underlying social and cognitive processes still remain unclear. On the other hand, in-depth social psychological analyses of absenteeism have been presented (cf. Chadwick-Jones, Nicholson, & Brown, 1982; Kaiser, 1994), but so far, these approaches lack firm empirical evidence.

The present study, which is conducted in the Netherlands, is designed to overcome these three limitations. First, a theory-guided or deductive approach is used to study absenteeism. Second, the study features a prospective design, in which objectively assessed absences from work over a longer period are predicted from measures taken at the beginning of this period. Third, absenteeism is examined from a social comparison perspective. It is assumed that comparisons with colleagues constitute a major determinant of absenteeism.

Social Comparisons as a Central Perspective on Human Behavior

Over 50 years ago, Sherif (1935) was one of the first social psychologists

to suggest that comparisons with others constitute a powerful way of establishing social reality. He showed that when individuals are confronted with ambiguous objects, their independent judgments of the object are influenced by the judgments of others. Sherif argued that when individuals are deprived of a social frame of reference and are confronted with ambiguous reality, their judgments and perceptions will be uncertain and unstable. The only way of coming to grips with their situation is to engage in an interaction during which information is exchanged (Moscovici, 1985).

Using others as a source of information to establish social reality became the central thesis of social comparison theory (Festinger, 1954; Wheeler, 1991). According to this theory, people will engage in comparisons with similar others, in order to reduce their uncertainty about the validity of their perceptions and judgments. In line with this general view of human behavior, absenteeism is viewed in this study primarily as individual behavior which takes place within a social context, and which is affected by comparisons with others at work. More specifically, it is assumed that absenteeism is the result of the perception of being less well-off than one's colleagues on several job aspects and the adjustment of one's personal norm regarding absenteeism to that of the work group.

Social Comparison of Job Outcomes

Relative deprivation theory (Crosby, 1976) and equity theory (Adams, 1965; Walster, Walster, & Berscheid, 1978) assume that employees evaluate the fairness of the outcomes provided to them by the organization (e.g., salary, immaterial rewards, promotion prospects, task variety, etc.) by comparing these to the job outcomes of others (for recent reviews, see Deutsch, 1983; Walker & Pettigrew, 1984). The results of several studies (for reviews, see Locke & Henne, 1986; Walster et al., 1978) have shown that the perception of undercompensation gives rise to grievance and resentment (Buunk & Janssen, 1992; Oldham et al., 1986). According to equity theory, such feelings motivate employees to reduce inequity. Research derived from equity theory suggests that employees use various modes of inequity reduction, such as lowering the quality or quantity of their work performance (Greenberg & Ornstein, 1993; Walster et al., 1978), stealing from the employer (Greenberg, 1990), and turnover (Greenberg, 1990). A few studies have provided evidence for the impact of feelings of undercompensation upon absenteeism.

Most studies on this topic have focussed upon interpersonal pay comparisons (Dittrich & Carrell, 1979; Hendrix & Spencer, 1989; Patchen, 1960): individuals appear to be absent more often, the more underpaid they feel compared to their colleagues. Research by Oldham et al (1986) has failed to

show a relationship between pay inequity and absenteeism. Instead, their results showed that employees are absent more often, the more disadvantaged they feel about their job complexity (in terms of skill variety, task significance, and autonomy) in comparison with referents of their own choice. On the basis of relative deprivation theory and equity theory, a relationship between inequity perceptions and subsequent absenteeism is interpreted as an attempt by the employee to alleviate resentment and to restore an equitable exchange relationship with the company—by staying away from their work employees reduce their investments, and at the same time increase their rewards (they have an extra day off, without financial consequences). In line with this reasoning, it is assumed in our study that the more disadvantaged employees feel about their job outcomes as compared to their colleagues, the more resentment they will feel (Path 1 in Figure 1). Furthermore, it is expected that the greater their resentment is, the more often they will be absent (Path 2 in Figure 1).

An additional and more exploratory part of this study involves the comparative referents that employees use. Previous research and theory suggest that individuals compare a variety of referents when contrasting their job outcomes (Adams, 1965; Goodman, 1974; Oldham et al., 1986), and that employee reactions are influenced by the comparative referents that are used (Oldham et al.). Therefore, we will explore: (a) which colleagues are used as comparative referents, and (b) whether or not employee reactions are related to the referent choice. With respect to the comparison other, employees could choose among referents that differed on three dimensions: *department* (same, other), *type of job* (similar, different), and *degree of collaboration* (often, not often).

Social Comparison of Norms Regarding Absenteeism

A second comparison process concerns the attitudes towards the amount of absence that is considered acceptable, and the conditions under which employees feel they can stay away from their work. Work groups may differ considerably in their tolerance of absenteeism, and several studies have shown the impact of group absence norms upon individual absence behavior (Chadwick-Jones et al., 1982; Johns, 1988; Shaw, 1976). For example, Chadwick-Jones et al. showed that absence patterns were very similar *within* social collectives (departments, plants, or occupations) but different *between* collectives. They concluded that individuals fit themselves into a group norm that prescribes how much absence is considered to be "appropriate" by the group.

The tendency of individuals to adjust their absence norms to the group absence norm is generally what would be predicted from social comparison theory, particularly as applied to conformity behavior (Allen & Wilder, 1977). The theory assumes that conforming behavior stems mainly from the

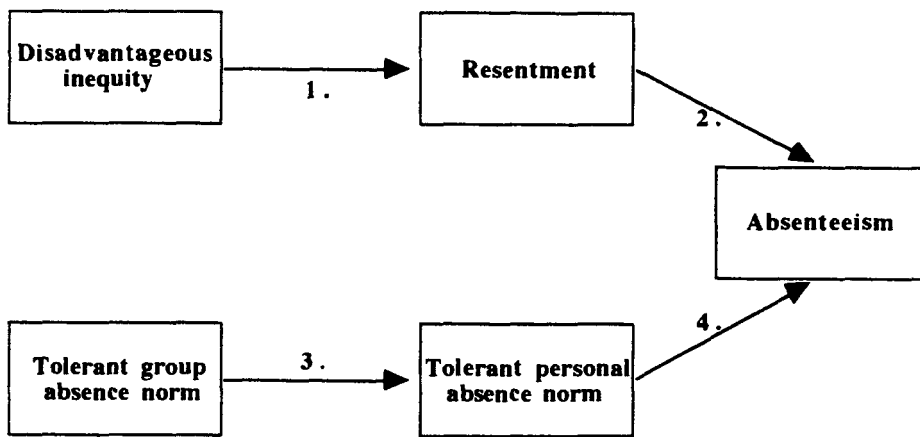


Figure 1. The hypothesized model.

motivation to establish a valid norm (i.e., informational social influence), rather than from a desire to comply with the expectations of the group (i.e., normative social influence; Moscovici, 1985; Turner, 1991). Therefore, employees will not only conform publicly but they will also adopt the attitudes of the group personally (Allen & Wilder, 1977). It can therefore be assumed that when employees perceive the group absence norm to be more tolerant than their own absence norm, they will internalize the more tolerant norm, and this will result in higher absenteeism. Similarly, when employees perceive the group absence norm to be less tolerant than their personal absence norm, they will adopt the less tolerant norm. Therefore, it can be expected that the more employees perceive the group absence norm to be tolerant, the more tolerant their personal absence norm will be (Path 3 in Figure 1). In addition, the more tolerant their personal absence norm is, the more often they will be absent (Path 4 in Figure 1).

Summary of the Research and the Theoretical Model

By featuring a prospective design, and by using objective recordings of actual absences for each employee, the present study aims to predict future absenteeism over a period of one year. By employing LISREL VII (Jöreskog & Sörbom, 1989) in a structural modeling approach, this study allows for the simultaneous testing of an a priori specified model that comprises all our hypotheses (Figure 1). To summarize, disadvantageous inequity based upon comparisons with colleagues will give rise to feelings of resentment. In order to reduce these feelings and restore equity, employees will stay away

from their work. Furthermore, absenteeism is likely to occur when employees have tolerant personal absence norms. Their personal absence norms are supposed to be more tolerant, the more they perceive the group absence norm to be tolerant.

Method

Subjects and Procedure

This study is conducted among two samples of male Dutch blue-collar workers, from a metal factory in the Netherlands, that mainly produces tin cans and covers. Sample 1, consisting of 254 subjects, is drawn from *Plant North* (87% of the total population). The average age and duration of employment are 35.06 years ($SD = 8.75$; range 21-61) and 13.59 years ($SD = 8.51$; range 0-42), respectively. Sample 2, consisting of 199 subjects, is drawn from *Plant South* (76% of the total population). The average age and duration of employment are 36.73 years ($SD = 10.10$; range 20-60) and 14.08 years ($SD = 9.38$; range 1-39), respectively. In neither plant participants and nonparticipants differ significantly with respect to age, duration of employment, and prior absence frequency.

Questionnaires were completed under supervision of two on-site assistants. All subjects participated voluntarily. They were informed of the necessity for the researchers to access to individual absence records, but it was strongly emphasized that the collected data would be treated confidentially.

Despite similarities in organizational structure, working conditions and job content, there was a difference between the two plants during the time this study was conducted. Plant North had just finished a period of reorganizations, during which about a quarter of the employees had been forced to resign or had quit voluntarily, the top-management had been replaced, and some former upgraded functions had been degraded. Plant South stood just at the beginning of a period of reorganizations, during which similar measures, as were taken in Plant North, could be expected. Consequently, it is plausible to assume that employees in Plant South experienced high levels of job insecurity during the time the current study was conducted.

Measures

Absenteeism

Absence frequency is measured *objectively* from organizational records made in the 12 month period immediately *following* the survey. A period of one year is chosen to ensure stability in the absence measure (Hammer & Landau,

1981; Ilgen & Hollenback, 1977). The absence frequency measure is chosen for theoretical and methodological reasons. Theoretically, absence frequency is supposed to best represent "voluntary" absences, that is, absences in which employees have some freedom of choice in deciding whether or not to stay away from their work (cf. Chadwick-Jones et al., 1982). Absence frequency is less affected by involuntary long-term illnesses than are time-lost indices, particularly when the absence frequency measure is corrected for absences of long durations (cf. Hammer & Landau, 1981; Smulders, 1980). Methodologically, absence frequency is more stable and less susceptible to skewness and leptokurtosis than are duration measures, and thus carries fewer problems in statistical analyses (Hammer & Landau). Accordingly, in our study the frequency of relatively *short* absence spells, in this case absences up to a maximum of 14 calendar days (cf. Smulders), is assessed for each employee. The cut-off point of 14 calendar days is chosen because, as was mentioned earlier, in the Netherlands absence spells lasting less than 2 weeks are *not* medically certified. Such absences, therefore, reflect primarily a decision made by employees themselves. The stability-index is calculated by correlating prior absence frequency (during the year before the survey) with subsequent absence frequency (during the year following the survey; Steel, 1990). The stability-index is .51 and .48 for Plant North and Plant South, respectively. Both indices are well within the range of Steel, who found correlations varying from .29 to .79. The kurtosis and skewness of the absence measure in the current study are .86 and 1.02, respectively, in Plant North, and .96 and .92, respectively, in Plant South, indicating that in both samples a normal distribution is approached.

Survey Measures

All survey measures are self-constructed. Table 1 shows the means, standard deviations, and internal consistencies of all variables included in the current study. Respondents in Plant North do not differ significantly from respondents in Plant South on any of the five variables. Table 2 shows the zero-order correlations among all variables.

Disadvantageous inequity. This scale consists of 11 items representing various job aspects, including: (a) working environment (e.g., smell, noise, and heat), (b) physical safety (e.g., protection against dangerous machines), (c) autonomy and freedom in the job, (d) variation in the job, (e) participation in decision-making, (f) rewards (e.g., salary or other compensations), (g) promotion prospects, (h) social conditions (e.g., vacation and training possibilities), (i) social atmosphere (i.e., contact with colleagues and direct superior), (j) supervision (i.e., the way one feels treated by superiors), and (k) the work situation in general. Subjects were asked how well-off they considered themselves compared to others within the organization on each of the 11 job

Table 1

Means (M), Standard Deviations (SD), and Internal Consistencies (α)

Measures	Plant North (N = 254)			Plant South (N = 199)			t	p
	M	SD	α	M	SD	α		
Disadvantageous								
inequity	2.86	.50	.83	2.94	.50	.84	-1.67	ns
Resentment	2.80	1.43	.88	2.98	1.40	.88	-1.33	ns
Group absence norm	2.51	.69	.64	2.41	.63	.56	1.64	ns
Personal absence								
norm	1.94	.76	.65	1.93	.76	.66	0.25	ns
Absence frequency	1.68	1.43	—	1.87	1.39	—	-1.48	ns

Table 2

Zero-Order Correlations

Variables	1	2	3	4	5
(1) Disadvantageous inequity		.36**	.12	.25**	.19**
(2) Resentment	.34**		.15*	.21**	.10
(3) Group absence norm	.00	.20**		.37**	.01
(4) Personal absence norm	.24**	.29**	.31**		.11
(5) Absence frequency	.24**	.11	.12	.24**	

Note. Above the diagonal Plant South (N = 199), below the diagonal Plant North (N = 254).

* $p < .05$. ** $p < .01$.

aspects. They responded on a 5-point scale ranging from *I feel strongly better off* (1) to *I feel strongly worse off* (5). The internal consistency is good, both in Plant North ($\alpha = .83$) and in Plant South ($\alpha = .84$). In addition, subjects were retrospectively asked with "what colleagues" had they compared themselves. They could choose among five groups: (a) "close colleagues"; (b) "colleagues from other departments, having similar jobs, and with whom I often collaborate"; (c) "colleagues from other departments, having different jobs but with whom I often collaborate"; (d) "colleagues from other departments, having different jobs, and with whom I do not often collaborate"; (e) "I compared to others on a varying basis." As we notice, the comparison others decrease in their proximity to the employee, and differ on three dimensions: department (same vs. other), type of job (similar vs. different), and degree of collaboration (often vs. not often).

Resentment. Subjects were confronted with five items concerning feelings of indignation, anger, unfairness, disappointment and injustice. They indicated on a 7-point scale ranging from *not at all* (1) to *very strongly* (7), to what extent they experienced these feelings. The internal consistency in both plants is .88. A similar scale has also been employed by Buunk and Janssen (1992) in their research on relative deprivation among men in midlife ($\alpha = .92$).

Group absence norm. Subjects were asked how tolerant they felt that their group of close colleagues would be towards absences in four potentially absence-inducing situations: (a) just wanting to stay at home, (b) being fed up with work, (c) not feeling too well, and (d) personal circumstances. The alternatives range on a 5-point scale ranging from *not acceptable* (1) to *very understandable* (5). The internal consistency is sufficient in Plant North ($\alpha = .64$), but rather low in Plant South ($\alpha = .56$). However, because these situations are supposed to decrease in the degree to which they leave employees free to decide if they will need to be absent from work, in addition a Guttman scalogram analysis is carried out (the items were dichotomized upon 1-2, indicating an intolerant attitude of the group, vs. 3-5, indicating a tolerant attitude of the group). If the scale has a Guttman pattern, then a subject who endorses that absences would be tolerated in Situation 2, should also have responded *positively* to all situations that leave employees *less* freedom of choice (Situations 3 and 4). In Plant North 83% ($n = 211$) fits the Guttman pattern (i.e., knowing these subjects' scores allows us to reproduce their pattern of responses), whereas in Plant South this involves 160 subjects (81%). This produces high indices of reproducibility (.96 and .95, respectively), indicating that the items constitute a unidimensional Guttman scale (values of less than .85 usually indicate that the items do *not* form a unidimensional scale: Ghiselli, Campbell, & Zedeck, 1981).

Personal absence norm. Subjects were asked how likely it was that each of the four potentially absence-inducing events, that are earlier mentioned, would lead to their being absent from work. The alternatives range on a 5-point scale ranging from *certainly not* (1) to *certainly* (5). The internal consistency is sufficient in both plants (Plant North: $\alpha = .65$; Plant South: $\alpha = .66$). Again, a Guttman scalogram analysis is executed (the items were dichotomized upon 1-2, indicating *not likely*, vs. 3-5, indicating *likely*). With 85% ($n = 216$) and 81% ($n = 162$) fitting the Guttman pattern, again high reproducibility coefficients are obtained (.96 and .95, respectively). Hence, also these four items form a unidimensional Guttman scale (Ghiselli et al., 1981).

Data Analysis

To assess the fit of the proposed model, a confirmatory path analysis is performed, using the maximum likelihood methods of LISREL VII (Jöreskog & Sörbom, 1989). As proposed by Kenny (1979), the reliabilities of the measures are used to fix the values of the factor loadings and error variances. For survey measures and the absence measure, the internal consistencies (i.e., Cronbach's alpha) and the stability-index are used respectively.⁴ The overall fit of the model to the data is tested by the absolute *chi-square* goodness-of-Fit index. In addition, other LISREL fit-indices (i.e., the Adjusted-Goodness-of-Fit Index—AGFI, and the Root Mean Square Residual—RMSR) are considered. Since these indices vary with sample size, McDonald and Marsch (1990) recommend the use of the Tucker-Lewis Index (TLI; Tucker & Lewis, 1973) for assessing the relative fit of the model, that is, compared to the null-model in which all variables are supposed to be uncorrelated. Values of less than .90 usually mean that the model can be improved substantially (Bentler & Bonett, 1980). LISREL provides information (i.e., modification indices and *t*-values) that can be used to improve the fit of the model; *t*-values are used to eliminate nonsignificant paths, and modification indices are used to explore the existence of unspecified but significant paths.

Results

Model Development in Plant North

The goodness-of-fit-measures indicate that our proposed model does *not* fit

⁴The path from any construct to its measured variable (i.e., lambda) equals the square root of the reliability of the measured variable. Consequently, the amount of random error variance (δ) is the quantity one minus the reliability

Table 3

Model Development in Plant North (N = 254)

	χ^2	<i>df</i>	<i>p</i>	AGFI	RMSR	TLI
M ₀	117.68	10	.000	.737	.188	—
M ₁	43.77	5	.000	.815	.115	.28
M ₂	45.74	7	.000	.863	.129	.49
M ₃	23.83	6	.001	.910	.078	.72
M ₄	9.87	5	.079	.953	.041	.91
M ₅	3.98	4	.409	.976	.023	1.00

Note. For M₀-M₅; see text. χ^2 = Chi-square goodness-of-fit index. AGFI = Adjusted-Goodness-of-Fit Index. RMSR = Root Mean Square Residual. TLI = Tucker Lewis Index.

the data of Plant North very well, $\chi^2(5, N = 254) = 43.77, p = .000$, AGFI = .815, RMSR = .115, TLI = .28. Therefore, additional steps have to be taken in order to arrive at a more acceptable model. Table 3 shows the goodness-of-fit measures of the null-model (M₀) and the a priori specified model (M₁) in Plant North, as well as four additional steps.

First, in M₂ the nonsignificant relationship of resentment with absence frequency is constrained to zero, as well as the covariance between disadvantageous inequity and the group absence norm ($\psi = .10, ns$). Thus, contrary to our expectation, it can no longer be assumed that resentment is directly related to absenteeism (Path 2: $\beta = .08, ns$). As can be expected, because the paths were nonsignificant, the fit does not deteriorate significantly, $\% \chi^2(2, N = 254) = -1.97, ns$. Second, the fit of M₃ improves significantly, $\% \chi^2(1, N = 254) = 21.91, p < .005$, when a relationship is specified between disadvantageous inequity and one's personal absence norm: The more disadvantaged employees feel about their job outcomes compared to their colleagues, the more tolerant their personal absence norm is. The next step that improves the fit of M₄ significantly, $\% \chi^2(1, N = 254) = 13.96, p < .005$, is *unconstraining* a direct relationship between the perceived group absence norm and resentment; the more employees perceive the group absence norm to be tolerant, the greater their resentment is. Although all goodness-of-fit indexes indicate that an acceptable fit is already attained, the fit can be further improved significantly in one additional step. In M₅ a direct relationship of perceived inequity and

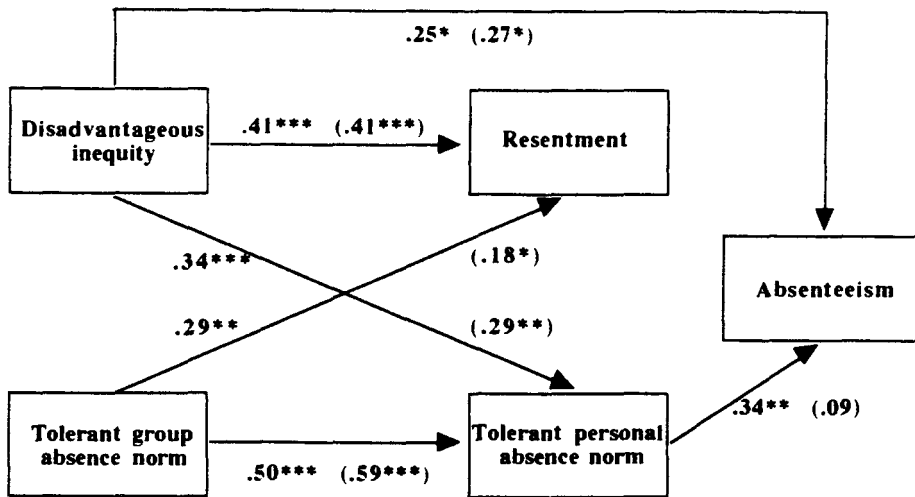


Figure 2 The final model in Plant North ($n = 254$) and in Plant South ($n = 199$). The standardized regression coefficient of Plant South are placed in brackets.

* $p < .05$. ** $p < .01$. *** $p < .001$.

absenteeism is *unconstrained*, $\% \chi^2(1, N = 254) = 5.89, p < .05$, indicating that employees are absent more often, the more disadvantaged they feel about their job outcomes. These steps result in a good fitting model, $\chi^2(4, N = 254) = 3.98, p = .409, AGFI = .976, RMSR = .023, TLI = 1.0$. Figure 2 shows the standardized regression coefficients of the final model in Plant North.

In this model, three of the four hypothesized paths appear to be significant. The more disadvantaged employees feel about their job outcomes compared to their colleagues, the greater their resentment is (Path 1: $\beta = .41, p < .001$). Furthermore, employees are absent more often the more tolerant their personal absence norm is (Path 4: $\beta = .34, p < .01$), and their personal absence norm is more tolerant, the more employees perceive the group absence norm to be tolerant (Path 3: $\beta = .50, p < .001$). The results further show that three additional paths are significant. Firstly, disadvantageous inequity is directly related to being absent ($\beta = .25, p < .05$), rather than through feelings of resentment. Furthermore, perceived inequity is related to one's personal absence norm ($\beta = .34, p < .001$). Finally, the perception of a tolerant group absence norm is associated with the experience of resentment ($\beta = .29, p < .01$). The final model explains 23.4 % of the variance in absence frequency in Plant North.

Cross-Validation of the Final Model in Plant South

In accordance with Bollen (1989), a *two-step* approach is used to test whether or not the empirical model of Plant North fits the data of Plant South as well. In the first step the previous structural equation model is tested, without constraining the standardized regression coefficients to be similar to those in Plant North. Thus, the *model-structure* is tested, without paying attention to similarity in parameter values. The goodness-of-fit measures indicate that the structural empirical model of Plant North fits the data of Plant South very well, $\chi^2(4, N = 199) = 3.50, p = .477$, AGFI = .974, RMSR = .036, TLI = 1.0. The model explains 9.5% of the variance in absenteeism in Plant South.

In the second step the structural equation model is tested with *constraining* the parameter values to be similar to those in Plant North. Thus, not only is the model-structure tested, but also the *similarity in parameter values*. The goodness-of-fit measures indicate that both the structural model and the values of the standardized regression coefficients of Plant North fit the data of Plant South as well, $\chi^2(10, N = 199) = 9.90, p = .449$, AGFI = .970, RMSR = .057, TLI = 1.0. The difference in Chi-square between Step 1 (model-structure validation only) and Step 2 (model-structure and parameter-value validation) is *not* significant, $\chi^2(6, N = 199) = 6.40, ns$, indicating that both the model structure and the parameter values are quite similar in the two plants.

Figure 2 shows in brackets the standardized regression coefficients of the model in Plant South. As is apparent from this figure, four of the five paths that are significant in Plant North are also significant in Plant South. The more disadvantaged employees feel about their job outcomes, the more often they are absent ($\beta = .27, p < .05$), the greater their resentment is ($\beta = .41, p < .001$), and the more tolerant their personal absence norm is ($\beta = .29, p < .05$). The personal absence norm is also more tolerant, the more tolerant they perceive the group absence norm to be ($\beta = .59, p < .001$). Furthermore, employees experience more resentment, the more they perceive the group absence norm to be tolerant ($\beta = .18, p < .05$). In contrast to the results in Plant North, in Plant South the personal absence norm is not significantly related to actual absence behavior ($\beta = .09, ns$).

To summarize, the results of both plants suggest that the perception of being less well-off than one's colleagues on various job aspects results in: (a) being absent more often, (b) having more tolerant absence norms, and (c) greater resentment. The perception of a tolerant group absence norm seems to lead to either resentment, or the adjustment of one's own personal absence norm to that of the work group. Having a tolerant personal absence norm, however, does not result automatically in actually being absent. This seems to have occurred only in Plant North.

Comparative Referent Choice and Employee Reactions

In addition, it is explored which colleagues are used as comparative referents, and whether employee reactions are related to the referents that are chosen. A Kolmogorov-Smirnov test shows that the distribution in referent choice is similar in both plants ($K-S Z = .63, ns$). The group of *close* colleagues is chosen most often for comparison purposes (Plant North: 44.3%, $N = 112$; Plant South: 39.6%, $N = 78$, respectively), followed by a group of colleagues from *other* departments having *similar* jobs and with whom employees *often* collaborate (Plant North: 22.5%, $N = 57$; Plant South: 29.4%, $N = 58$, respectively). A group of colleagues from *other* departments, having *different* jobs and with whom employees do *not often* collaborate is chosen least often for comparison purposes (Plant North: 4.0%, $N = 10$; Plant South: 5.1%, $N = 10$). A group of colleagues from *other* departments, having *different* jobs but with whom employees *often* collaborate takes a moderate position (Plant North: 12.6%, $N = 32$; Plant South: 15.2%, $N = 30$). Finally, 16.6% ($N = 42$) of Plant North and 10.7% ($N = 21$) of Plant South has not used just one single group of colleagues to compare with on the various job aspects, but has compared to others on a varying basis. To summarize, the results of both plants clearly show that the closer one's colleagues are, the more often they are chosen for comparison purposes.

To examine whether one's referent choice is related to any of the variables under study, a multivariate analysis of variance (MANOVA) is performed, with the referent choice as independent variable, and all five variables of the final model (Figure 2) as dependent variables. The results show that the five groups that differ in their referent choice do *not* significantly differ on any of the variables under study (Multivariate Plant North: $F(20, 980) = .88, ns$; Plant South: $F(20, 744) = .65, ns$).

Discussion

The present research is an attempt to make a theoretical and an empirical contribution to absence research by prospectively studying objectively recorded absence frequency from a social comparison perspective, and more particularly, by testing a model based on this perspective. It was assumed that absenteeism is the result of the perception that one is less well-off than one's colleagues on several job aspects, and the adjustment of one's personal absence norm to that of the work group.

With respect to the first social comparison process, the results for both plants showed that employees are actually absent more often, and that they have more tolerant personal absence norms, the more disadvantaged they

feel about their job outcomes compared to their colleagues. In neither plant does resentment play the expected mediating role between perceived inequity and absenteeism. The perception of inequity is associated with feelings of resentment, but these feelings are *not* related to absenteeism. This finding suggests that absence from work should not be primarily interpreted as an attempt by the employee to alleviate resentment, but rather as a direct attempt to restore an equitable situation. In addition to this *behavioral* response to feelings of undercompensation, employees also seem to develop more tolerant absence norms, suggesting a *psychological* attempt to reduce inequity.

In exploring which colleagues are used as comparative referents, the results in both plants showed that close colleagues are more often chosen for comparison purposes than are colleagues from other departments. This finding is in line with social comparison theory that assumes that persons prefer comparisons to others who are similar on the dimension under evaluation (i.e., "foreground similarity"), or who are perceived to be similar on dimensions that are related to the dimension under evaluation (i.e., "background similarity"), because such comparisons reveal the most valuable information (Festinger, 1954; Goethals & Darley, 1977; Wood, 1989). The results showed that employees who differ in their comparative referent choice do *not* differ significantly on any of the measures under study. Accordingly, we conclude that the comparative referent choice is *not* related to employee reactions.

With respect to the second social comparison process, the results in both plants showed that the perception of a tolerant group absence norm results either in resentment, or in the adjustment of one's personal absence norm to that of the work group. The personal absence norm, however, is significantly related to actual absence behavior only in Plant North. In Plant South, employees do *not* seem to have acted according to their tolerant absence norm. The lack of such a relationship in Plant South might be explained by certain barriers that are perceived by employees in this plant, in contrast to employees in Plant North. It is plausible to assume that high *job insecurity*, associated with fear of losing one's job (Hartley, Jacobson, Klandermans, & Van Vuuren, 1991), was such a barrier that prevented employees in Plant South from reporting sick. As we mentioned earlier, employees in Plant South had every reason to be concerned about keeping their jobs because of the ongoing reorganization. In contrast, employees in Plant North would have no such worry, because the reorganization had already been finished.

To conclude, the results of this study suggest that both the perception of inequity and the perception of a tolerant group absence norm affect employees in two different ways. First, employees develop a more tolerant personal absence norm, resulting in being absent more often. Second, rather than being absent more often, employees develop resentment in response to a tolerant

group absence norm and disadvantageous inequity. It can be speculated that whether the first or the second response occurs depends upon the existence of internal barriers, for example one's personal work ethic, that restrain the individual from being absent (Steers & Rhodes, 1978). When such barriers do *not* exist, employees might easily adjust their personal absence norm to a tolerant group absence norm, and being absent is an attractive way to restore an equitable relationship with the company. However, when such barriers *do* exist, staying away from work will *not* be taken into consideration in order to restore equity. As a consequence, feelings of resentment might develop, and these feelings might be aggravated by the perception that colleagues stay away from their work easily. Therefore, taking one's personal work ethic into account in studying the impact of social comparison processes upon absenteeism, might be a suggestion for future research.

Some practical implications can be inferred from these results. Because of the undesirable consequences of perceived *inequity*, it is important that the management recognizes early and effectively deals with these perceptions among employees. This requires not only a well-developed communication structure that provides for regular and formal meetings between superiors and employees, but also a management that is responsive to distress among employees, and that has the ability and authority to resolve the problems that are brought to their attention by the employees. Several studies have shown that absence rates are lower in organizations that provide for regular meetings with superiors (Koopman-Iwema, 1986) and that are characterized by considerate and participatory leadership styles (cf. Johns, 1978; Tharenou, 1993; Wexley & Nemeroff, 1975). Both suggestions are also important in reducing the unfavorable impact of a *tolerant group absence norm*. Our research suggests that a tolerant group absence norm increases absences within the work group, and evokes resentment among employees who do not act consistently with this norm. Therefore, it is of great importance to achieve some consensus about how much absence is tolerated within the work group, and to recognize openly an acceptable absence level. Chadwick-Jones et al. (1982) argue that employees should participate in establishing such an acceptable level of absence, rather than that an "official" absence norm is imposed upon the work group by the management.

The present study has some limitations. First, although absenteeism is assessed prospectively, the predictors of absenteeism are assessed cross-sectionally. Therefore, the causal direction of the relationships among these variables cannot be disentangled. A longitudinal design in which both dependent and independent variables are measured more than once should be employed to provide more clarity about these points. Second, several steps are taken to arrive at a proper fitting model. Therefore, the possibility of chance

capitalization cannot be completely ruled out, although the successful cross-validation of the empirical model is a first test of the robustness of the relationships among the variables. Third, some caution is called for when generalizing the results of this study to employees in other organizations or other professions. Not only are the results based upon homogeneous samples, but these samples are also drawn from organizations that were undergoing or had undergone reorganizations.

Despite these limitations, the final model explains about 23% of the variance in absence frequency in Plant North, and approximately 10% of absence frequency Plant South. These percentages are quite satisfactory, when compared to other studies that explain up to 20% to 25%, by employing large and heterogeneous sets of variables, and by measuring absences by means of self-reports. For example, in a Dutch study by Schalk (1989) 19% of absence frequency is explained, but over 100 predictors were employed. In an American study by Brooke and Price (1989), 22% is explained, but absences were self-reported. Hence, our results illustrate how fruitful theory-driven research based on a social comparison perspective can be for our understanding of absenteeism.

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