# A Policy-Capturing Approach to Individuals' Decisions to Be Absent

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This study provided a within-subjects assessment of the factors associated with an individual's decision to be absent and examined whether there were differences between individuals in their decisions. A sample of maintenance and clerical employees at a large Midwest university responded to hypothetical scenarios describing factors that might contribute to their decisions to be absent on a particular day. Illness explained more variance than any other factor in individual's absence decisions. Several other within-subject and between-subject influences were identified. Results from a cluster analysis suggested that the importance of these factors differed between subgroups of individuals, lending support to Johns and Nicholson's (1982) argument that the meaning of absence is not the same for all individuals. © 1994 Academic Press, Inc.

As with much of the emphasis on explaining variance in dependent variables in organizational behavior research (Schwab, 1980), the literature on employee absenteeism has focused on explaining variance in the frequency and duration of absence occurrences in between-subjects designs (Fichman, 1991; Staw & Oldham, 1978). However, meta-analytic estimates of the proportion of variance explained in absence occurrences by demographic factors and other individual differences have revealed relatively small effects (Farrell & Stamm, 1988; Hackett & Guion, 1985; Martocchio, 1989a).[1] More recently, researchers have studied absence

[1] In making this statement, an assumption is that the small effects are due to substantive factors. However, methodological factors may be an alternative explanation. See Hulin (1991) for methodological explanations of these results.

occurrences based on the assumption that individuals make decisions to be absent and such decisions predict absence occurrences (George, 1989; Harrison, 1988; Harrison & Hulin, 1989; Judge, 1990; Martocchio, 1989b), or that absence versus attendance is a motivational process enacted by individuals over time (Fichman, 1988, 1991). The focus of much of this research has been the examination of individual time allocations between work and nonwork alternatives based on event history analysis where inferences about the decision-making antecedents of absence occurrences were made from complex statistical models of absence occurrences. Some of these researchers (Harrison, 1988; Martocchio, 1989b) have demonstrated, based on a theory of reasoned action (Ajzen & Fishbein, 1980), that intentions to be absent (one primary component of the decision to be absent) are the most immediate predictor of absence occurrences for a variety of individuals.

Johns and Nicholson (1982) have argued that absence events are phenomenologically unique to each individual (i.e., absence may mean different things to different people at different times). In particular, they recommend research strategies that permit assessment of the significance of absence events within the work and nonwork domains of an individual's life. Furthermore, although some researchers view absence occurrences as having volitional antecedents, Johns and Nicholson (1982) argue that there are individual differences that may be related to the absence phenomenon. Absence researchers have focused almost exclusively on maximizing variance in the absence dependent variable using between-subjects designs without sufficient attention to the decision or motivational processes by which alternatives (absence versus attendance) are enacted. Thus, the purpose of this study is to provide a within-subjects assessment of the factors associated with an individual's decision to be absent that allows a direct assessment of potentially absence-inducing events. This gets closer to the absence decision process than the indirect assessment of potential determinants through post-hoc interpretation of correlations between the events and absence. Our study of the antecedents of absence decisions is guided, in part, by prior theory and empirical evidence, and it is also exploratory in nature as there is relatively little research on the antecedents of absence decisions. Further, our design permits a cluster analysis of absence decisions, which allows assessment of the degree to which absence decisions have different meanings for individuals. Finally, we examine whether there are differences between individuals in their decisions based on individual characteristics suggested by prior absence research. In doing so, our goal was to provide as much information as possible about the main effects of within- and between-subjects influences on absence decisions.

It should be noted that our investigation focuses on an individual's decision to be absent that is operationalized by one's estimated likelihood of being absent on a particular day. The extant research on absence traditionally has examined absence occurrences (viz., time lost or frequency) (Hulin, 1984). In addition, much of the absence research has modeled individuals' time allocation decisions regarding absence occurrences from work and attendance over time based on the study of absence occurrences (Fichman, 1988, 1991; Harrison & Hulin, 1989). Because researchers have inferred that absence occurrences may be due, in part, to an individual's decision; it is important to study *whether* the absence decision per se can be modeled. Thus, our focus is limited to identifying the psychological antecedents of an absence decision cross-sectionally, not the relationship between absence decisions and absence occurrences.

## LITERATURE REVIEW

### Absence as Phenomenologically Unique Events

Johns and Nicholson (1982) have critiqued the absence literature by arguing that absence researchers typically have assumed that similar absence events have functionally and psychologically equivalent meaning for all employees. One way in which this has been manifested is in the widely repeated practice of examining absence as an outcome of psychological factors such as job satisfaction. Indeed, since the Johns and Nicholson (1982) review, absence researchers have addressed absence as undifferentiated events, which have similar psychological meaning across individuals and contexts. Specifically, meta-analytic reviews (based on validity generalization assumptions; see Hunter, Schmidt, & Jackson, 1982, for a discussion) of the job satisfaction–absence relationship (Farrell & Stamm, 1988; Hackett & Guion, 1985) showed that various facets of job satisfaction accounted for a substantively small percentage of variance (less that 5%) in absence after controlling for the effects of sampling error and measurement unreliability. These findings tend to undermine the assumption that absence has an equivalent psychological meaning across individuals.[2] If absence had an equivalent meaning across individuals, one would expect consistently moderate to strong relationships (Cohen, 1977) between job satisfaction and absence across a variety of employment contexts and employee occupations.

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[2] An alternative explanation for the low correlation between absence and job satisfaction is that constraints against being absent may have prevented employees from responding to their dissatisfaction through absenteeism (Herman, 1973; Smith, 1977). However, it is not necessarily the case that job satisfaction causes absenteeism for all individuals (Clegg, 1983). Therefore, this alternative explanation may not hold in all cases in which the job satisfaction–absenteeism correlation was observed.

Another way in which researchers have addressed similar absence events as having functionally and psychologically equivalent meaning for all employees is through the use of between-subjects research designs (in contrast to within-subjects designs) employed in virtually all published absence research. In the case of choosing to be absent, between-subjects designs do not permit researchers to examine the relative importance of factors that antecede each individual's decision to be absent. In effect, variability in what is salient and relatively important to one's absence choice is masked by between-subjects designs. Within-subjects designs, however, offer an alternate strategy that overcomes these problems. A recent study by Hackett, Bycio, and Guion (1989) demonstrated the advantages of within-subjects investigations using an idiographic design.

Policy capturing represents a within-subjects method for measuring the relative importance of decision variables, or factors, to a decision maker's choice among alternatives. Policy capturing as a methodology falls in the information-processing paradigm (Zedeck, 1977). That is, the purpose of the approach is to capture, in a mathematical equation, an individual's process of combining information to make a decision (Zedeck, 1977). This approach captures the relative importance of information to a decision maker who is faced with alternatives from which to choose. Factors are varied by the investigator in descriptions or scenarios, and the importance of these factors is inferred from individuals' choices. Rather than focusing on an individual's explicit rankings or ratings, this approach infers the influence of these factors from an individual's choices (Zedeck, 1977). This approach has gained favor because some research has demonstrated that individuals often overestimate the relative importance of minor factors in subjective ratings, sometimes due to social desirability (Arnold & Feldman, 1981).

## The Substance of Absence Decisions

Some researchers (Johns & Nicholson, 1982; Nicholson, 1977) maintain that absence is a differentiated phenomenon based on causes attributed to absence occurrences by the absentee. Specifically, Nicholson (1977) proposed that potential absence-inducing events should be classified by the freedom absence-inducing events provide an individual in *deciding* whether or not events justify staying away from work. For example, Nicholson and Payne (1987) reported results of home interviews of a variety of employees who were asked to make attributions of their prior absences as well as potential future absences. Nicholson and Payne (1987) found that the vast majority of individuals attributed prior and potential

future absence to factors beyond personal control, specifically, illness, rather than to events within their own control, such as leisure activities. They concluded that attributing absence to medical illness is consistent with evolving social beliefs about what constitutes acceptable reasons for absence in a particular context. This conclusion is consistent with research which showed that medical absence was systematically related to work and nonwork motives (Rushmore & Youngblood, 1979).

Smulders (1980) suggested that absence is one element of a "sick role" (viz., Parsons, 1952), a temporal process in which an individual moves from a "well" state to a state of illness, to a coping process, and finally, a return to a "well" state. In particular, Smulders (1980) argued that an absentee makes many, sometimes unconscious, decisions to enact the "sick role" that are under the influence of external circumstances (e.g., the attitudes and opinions of relatives and medical professionals as well as sickness benefits offered by the employer and the job situation). An employee is more willing to return to his/her job when working conditions improve or upon the advice of his/her medical adviser (Smulders, 1980). This suggests that illness may be one of the most salient reasons for absence decisions.

Some research suggests additional possible factors related to one's decision to be absent from work. Morgan and Herman (1976), using an expectancy theory framework to examine absence, identified hobby and leisure time, kinship responsibilities, and personal illness as influences on absence decisions. Youngblood (1984) found that absence was related to the value of nonwork hours, which supports the view that absence is a function of motivation processes extant in work and nonwork domains. While these studies suggest several factors relating to absence decisions, this area of research is largely in an exploratory stage. Thus, an elicitation study (Ajzen & Fishbein, 1980) was used as a basis to identify relevant factors associated with one's decision to be absent (see Method section for details).

Six factors related to one's decision to be absent were identified in the elicitation study. These included (a) hobbies/leisure activities unrelated to one's employment, (b) community or religious activities unrelated to one's employment, (c) day of the week (either the day before or the day after a weekend or in the middle of the work week), (d) kinship responsibilities that include either dependent children or other family responsibilities, (e) work demands (i.e., whether there is a heavy work load and pressing deadline or an average or light work load and no pressing deadlines), and (f) personal illness (i.e., no illness, a minor illness, or a major illness). The relevance of these factors is supported by the research reviewed above.

Based on the results of the elicitation study and past research reviewed above, each factor was hypothesized to affect individuals' decisions to be absent. Specifically:

H1: The presence of hobby/leisure activities will lead to a higher estimated likelihood of absence on a particular day.

H2: The presence of community/religious activities will lead to a higher estimated likelihood of absence on a particular day.

H3: The beginning or end of the work week will lead to a higher estimated likelihood of absence on a particular day.

H4: The presence of kinship responsibilities will lead to a higher estimated likelihood of absence on a particular day.

H5: The presence of pressing work will lead to a higher estimated likelihood of absence on a particular day.

H6: The presence of personal illness will lead to a higher estimated likelihood of absence on a particular day.

## Differences between Subjects in Absence Decisions

Several variables that influence absence decisions are likely to differ between individuals. The influence of job satisfaction on absence has been the subject of some controversy. The meta-analytic results do not support a strong influence of job satisfaction on absence (Hackett & Guion, 1985), yet Hulin (1991) has argued that the low estimated correlations may be due to the distributional properties of absence. Because of the low base rate of absence (see Rhodes & Steers, 1990), the distributions of archival measures of absence are positively skewed (Harrison & Hulin, 1989). Therefore, uncorrected parametric tests of satisfaction with archival measures of absence will likely yield consistent underestimates of the underlying relationship (Hulin, 1991). The design used in the present study may alleviate some of these problems because absence decisions are aggregated across situations, thereby improving the distribution of the phenomenon (Hulin, 1991). Rosse and Miller (1984) presented a psychological model that hypothesizes that individuals who dislike their jobs will adapt to the dissatisfaction by engaging in behaviors aimed at increasing their job satisfaction. Absence, where employees may adapt by attending a job they dislike less often, is one such behavioral example. Accordingly, it is expected that those employees who dislike their present jobs will evaluate a given scenario as more likely to lead to absence on their part.

H7: Those dissatisfied with their jobs will be more likely to indicate that they will be absent on a particular day.

Judge (1990), building upon the work of George (1989), hypothesized that those unhappy in life will be more likely to be absent. Staw and Ross

(1985) argued that disposition would likely indirectly affect withdrawal behaviors such as absence. However, it is also possible that affective disposition has a direct effect on absence. Researchers in the personality literature have found that unhappy individuals will often seek to change their lives, calling this process mood repair (Holahan & Moos, 1987; Pelicier, 1987). Some of these changes may involve the job, some may not. Judge (1990) found that those unhappy with their lives in fact were more likely to be absent, even controlling for the effect of job satisfaction on absence. Judge (1990) noted that future research, utilizing different measurements and research designs, would need to examine the replicability of the results. It is possible that the use of different measures and methodologies results in different estimates of the effect of affective disposition on absence.

> H8: Those with low levels of subjective well-being will be more likely to indicate that they will be absent on a particular day.

Research by Hall (1982) indicates that, as workers get older, they prefer to remain with their current employer. In addition, Martocchio's (1989a) meta-analysis of the age–absence relationship demonstrated that employee age and voluntary absence are inversely related. He explained this relationship using an interactionist perspective (Bowers, 1973). The interactionist perspective maintains that situations are as much a function of a person's behavior as a person's behavior is a function of the situation. Schneider (1983) suggested that people tend to choose proactively to locate themselves in environments that are compatible with their own behavior tendencies. Therefore, to the extent that absence is conceptualized in terms of a form of withdrawal from an unsatisfactory work situation, one would expect less absence as a person–situation fit is developed over time.

> H9: Older workers will be less likely to indicate that they will be absent on a particular day.

Educated workers have often been found to have lower absence rates (Rhodes & Steers, 1990). Therefore, it is expected that educated workers will be less likely to evaluate a given scenario as leading to absence on their part.

> H10: Educated workers will be less likely to indicate that they will be absent on a particular day.

Familial demands may draw a worker away from the job more often (Ilgen & Hollenback, 1977). Therefore, it was expected that those with substantial kinship responsibilities will likely see a given scenario as more likely to lead to absence on their part. This effect is similar to that hypothesized in H4, but this refers to the degree to which responsibilities

already influence each absence scenario, not the degree to which manipulated changes in responsibilities lead to different estimated absence frequencies.

H11: Those having substantial kinship responsibilities will be more likely to indicate that they will be absent on a particular day.

Several other between-subject variables were expected to influence absence decisions. Absence rates have been found to vary widely by occupation (Rhodes & Steers, 1990). Therefore, occupation was instituted as a control. However, no specific direction was hypothesized. The degree to which individuals expect to be absent is likely to affect their evaluation of a given scenario. Those individuals who intend to be absent in the future are likely to see more scenarios as leading to absence on their part.

H12: Those who intend to be absent in the future will be more likely to indicate that they will be absent on a particular day.

Past research has shown that females have higher absence rates than males (Rhodes & Steers, 1990). This may be due to the traditional division of household work (Northcott, 1983).

H13: Women will be more likely to indicate that they will be absent on a particular day.

The percentage income that workers contribute to total household income may influence their absence decisions. Those that are the prime wage earners may realize that their absence is likely to have a disproportionate impact on household income (assuming that unlimited paid absences are not allowed by the organization).

H14: The lower percentage income that individuals report relative to total household income, the more likely they will indicate that they will be absent on a particular day.

Finally, it is important to explore, based on Johns and Nicholson's (1982) arguments about the phenomenological uniqueness of absence, whether the factors that are important in absence decisions differ between individuals. For example, do the within-subject factors influence the estimated probability of absence equivalently for all individuals? If not, are there similar subgroups of individuals, or is the meaning of these within-subjects factors unique to every (or most every) individual? Finally, what factors cause individuals to differ in the factors that influence absence decisions? While these questions are necessarily investigated in an exploratory manner, they can be answered only by a within-subjects design. Thus, answers to these relevant questions concerning absence decisions may represent a unique contribution of the present study.

## METHOD

### Setting, Subjects, and Procedure

Surveys were administered to employees at a large Midwestern university. Respondents came from a variety of departments in the university. Respondents consisted of two broad occupational categories: service/maintenance (85%) and library/clerical (15%). Individuals completed surveys while at work. Participation was voluntary; anonymity and confidentiality were ensured in advance. Surveys were administered to 144 employees. Of those, 6 returned blank surveys (i.e., 6 employees refused to participate). Thus, 138 usable surveys were completed, representing a 95.8% response rate.

Average age of respondents was 39.7 years ($SD$ = 9.9). Average tenure with the organization was 7.5 years ($SD$ = 5.9). Sixty percent of respondents were married ($SD$ = .57) and the average number of children under 21 was 1.6 ($SD$ = .84). Half the respondents' highest education level was high school diploma. Thirty-five percent had completed some college work or possessed an associate's degree. Fifty-five percent of respondents were women ($SD$ = .50).

### Research Design and Measures

A mixed experimental design (Keppel, 1982) was used. The design is mixed in that the overall design incorporated both within-subjects and between-subjects components. As stated previously, the within-subjects design permits researchers to infer the relative importance of particular factors that are related to an individual's decision making. When the research question is focused on decision making, this design is known as policy capturing and has been widely used in the study of decision-making processes within the organizational context (e.g., Klaas & Wheeler, 1990; Sanchez & Levine, 1989).

The six within-subjects factors (i.e., reasons for absence decisions) were identified in an elicitation study. Fifty clerical and unskilled employees from a Fortune 500 company were asked to participate in the elicitation study. Participants were asked (a) to generate a list of factors that have been relevant to their absence decisions and (b) to describe each reason in detail. The senior author generated a list of factors and tested their predictive efficacy in a between-subjects design that linked absence decisions with absence occurrences (Martocchio, 1989b). Each factor, with the exception of the illness factor, contained two levels (i.e., the factor was present or not). The illness factor contained three levels (i.e., illness was not a factor, minor illness, and major illness).

The six within-subjects independent variables were completely crossed, which permits assessment of the independent effects of each

factor on the decision to be absent. Crossing the factors resulted in 96 scenarios ($2 \times 2 \times 2 \times 2 \times 2 \times 3$) which contained all possible combinations of the independent variables. The scenarios were presented in the survey in random order to randomize order effects. Each participant was asked to read each description as a set of factors that s/he might encounter on a scheduled work day. An example of a scenario is provided.

> It is Friday or Monday. You have a particularly busy time at work or a deadline you need to meet. You have a minor illness.

Regarding the within-subjects factors, the factor either was stated in the scenario if it was an issue the respondent was asked to consider or was not present if it was not a particular issue to be considered. One exception was the day of the week factor: a day was always noted. Thus, at minimum, a scenario contained the day of the week.

The dependent variable, decision to be absent, was measured by a question using a seven-point Likert-type scale. It was operationalized in the following manner: "Indicate the extent to which you would likely miss work if you were facing these particular circumstances." The 7-point response scale was anchored by "highly unlikely" to "highly likely." Overall, the mean of this variable, collapsed across all subjects and all scenarios, was 3.64 ($SD = 2.08$).

The between-subjects design permits assessment of inter-individual differences based on individual attributes (e.g, disposition, job satisfaction, kinship responsibilities). The attribute variables were measured as follows.

*Job satisfaction.* Job satisfaction was assessed by the 24-item Job-In-General scale (Ironson, Smith, Brannick, Gibson, & Paul, 1989). The coefficient alpha for the scale was .93.

*Subjective well-being.* Subjective well-being was assessed by two frequently used measures (see Diener, 1984): the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) and the Underwood and Froming (1980) scale. Items from these scales were summed to form an overall measure of subjective well-being. Coefficient alpha for the composite scale was .86.

*Kinship responsibilities.* Following Blegen, Mueller, and Price (1988), a measure of kinship responsibility was formed by asking respondents the number of children under 6, number of children ages 6–17, and number of children ages 18–21 they cared for. These items were summed to form a kinship scale.

*Absence intentions.* Intentions to be absent were assessed by asking the respondents to indicate the likelihood of their missing work due to reasons for being absent investigated by Nicholson and Payne (1987). Six of these factors corresponded to the factors used for the scenario develop-

ment. Six additional reasons (e.g., fights with co-workers or supervisor, get some rest) also were included in accordance with Nicholson and Payne (1987). Responses were summed across all items to yield an overall intention to be absent. The reliability for this scale was .85.

*Other characteristics.* Education, age, sex, job classification, and percentage income to total household income were assessed through specific questions on the employee survey.

## Analyses

*Between-subjects analysis.* In order to estimate possible differences between individuals on the basis of the demographic and dispositional variables, an overall model was specified. Analysis of variance (ANOVA) was used as the method of analysis. The typical procedure of entering covariates (all noncategorical variables) first and then adding the categorical variables (including within-subject factors) was followed. Because no interactions among the within-subjects factors or between the within- and between-subjects factors were hypothesized, they were not included in the analysis. The covariates specified in the model were job satisfaction, subjective well-being, age, absence intentions, and percentage income to household income. Between-subject variables that were categorical were sex, education (five levels), and job classification.

*Within-subjects analysis.* Multiple regression analysis was used to assess the effects of the linear combination of the six independent factors related to one's absence decision as well as the individual effects. Orthogonal contrast coding was used (Cohen & Cohen, 1983). One regression equation was calculated for each participant.

In order to exploit fully the within-subjects design of the study, we investigated the degree to which absence has different meaning for individuals using a hierarchical clustering procedure. The program used to execute this procedure was developed by Veldman (1967) and has been used by Hobson, Mendel, and Gibson (1981). Similar procedures have been developed and used by Ward and Hook (1963) and Shaffer (1987). The standardized regression weights of the six within-subjects factors used in predicting absence decisions for each of the 138 subjects served as input into the program. The program iteratively combines these weights in clustering individuals into groups. With each successive iteration, an error index was computed that is the sum of the squared deviations between each beta weight for each pair of individuals, divided by the number of individuals in the group. The combined individuals who lead to the lowest squared deviation—the least error—of all possible combinations are then combined together. The algorithm used by Veldman (1967) is based on the clustering procedure developed by Ward (1963). Ward's procedure also has been incorporated into commonly used statistical packages (see *SAS*

*User's Guide: Statistics*, 1985; and *SPSS Reference Guide*, 1990). Milligan (1980) has pointed out that Ward's procedure tends to join clusters with a small number of observations and is sensitive to outliers. However, most methods of clustering possess certain limitations (Milligan, 1980), and in fact past research has shown that Ward's method performs at least as well as any other clustering method. Therefore, we chose to use Veldman's (1967) algorithm with the knowledge that it, like most clustering procedures, is imperfect.

The program began by forming 137 groups from 138 individuals, where two individuals become part of one group, and an error index was computed. The two individuals to be selected as part of that group were those with the smallest summed squared difference between their six beta weights. This procedure continued until all individuals were combined into one group. Veldman (1967) suggested that the number of clusters should be determined based on the error index. Since the error index will increase with each successive grouping, the grouping at which forming the next group yields the largest relative increase in the error index suggests the optimal number of clusters.

While information regarding clusters of individuals provides useful information about the degree to which the factors that influence absence have different meaning for individuals, it is important to understand the factors that may cause individuals to be classified into different clusters. Furthermore, it is desirable to validate cluster analysis results (Milligan & Cooper, 1987). In order to ascertain which factors differentiated individuals in their absence decisions, a discriminant analysis (Tatsuoka, 1971) was performed using *SPSS* (*SPSS Reference Guide*, 1990). Discriminant analysis differentiates groups that have been defined on an a priori basis. In this case, the between-subjects variables used as influences on absence decisions were employed as discriminant variables, with cluster or subgroup membership serving as the grouping variable; proportional prior probabilities were based on cluster size. This procedure represents an external criteria validation approach (Milligan & Cooper, 1987). Additionally, four other variables were added to the discriminant analysis that we thought might influence group membership. These additional variables were organization tenure, marital status, self-reported rating of past absence (for 12 different reasons), and the degree to which absences (for the same 12 reasons) were seen as voluntary.

## RESULTS

*Between-Subjects Analysis*

Table 1 provides the *ANOVA* results on the decision to be absent for the pooled sample. As hypothesized, job satisfaction, subjective well-

being, age, the percentage of income the respondent contributed to household income, sex, education, and absence intentions all explained a significant amount of the variance in absence decisions. Kinship responsibilities of the respondents did not influence their evaluation of absence scenarios. All influences, with the exception of education, were in the predicted direction. Education may have been positively associated with absence due to the greater employment alternatives associated with education (Judge & Chandler, 1991). Therefore, highly educated employees may have perceived that they had less to lose by being discharged for excessive absence. Maintenance workers were significantly more likely than clerical workers to indicate they would be absent. Thus, of the between-subjects hypotheses, only H10 and H11 were not supported.

Table 1 also shows the results of within-subject influences on absence for the pooled estimate. The within-subject factors that explained a significant amount of the variance in absence decisions were illness, day of

TABLE 1
ANALYSIS OF VARIANCE RESULTS

| Source | Sum of squares | DF | F | Omega squared[a] |
|---|---|---|---|---|
| Between-subject factors | | | | |
| Income contribution | 302.74 | 1 | 124.56** | .0054 |
| Age | 109.84 | 1 | 45.19** | .0019 |
| Subjective well-being | 24.66 | 1 | 10.15** | .0004 |
| Job satisfaction | 179.89 | 1 | 74.02** | .0032 |
| Intent to be absent | 3083.46 | 1 | 1268.66** | .0545 |
| Kinship responsibilities | 3.27 | 1 | 1.35 | .0001 |
| Service/maintenance | 14.86 | 1 | 6.12* | .0002 |
| Education | 444.95 | 4 | 45.77** | .0077 |
| Sex | 297.24 | 1 | 122.30** | .0052 |
| Within-subject factors | | | | |
| Community activities | 10.15 | 1 | 4.18† | .0002 |
| Kinship responsibilities | 1080.00 | 1 | 443.53** | .0190 |
| Personal illness | 18493.41 | 2 | 3804.48** | .3270 |
| Hobbies/leisure activities | 2.23 | 1 | 0.92 | .0000 |
| Work demands | 43.96 | 1 | 18.09** | .0007 |
| Day of the week | 26.83 | 1 | 11.04** | .0004 |
| Explained | 24709.99 | 19 | 535.09** | .4363 |
| Residual | 31822.28 | 13093 | | |
| Total | 56532.27 | 13112 | | |

[a] Variance explained by continuous variables (covariates) was calculated according to Keppel (1982).

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

the week, kinship responsibilities, pressing work, and community activities. Hobby/leisure activities did not explain a significant amount of variance in absence. Inspection of the means revealed that overall the six within-subjects factors affected absence decisions in the predicted direction. Of the within-subjects hypotheses, only H1 (hobby/leisure activities) was not supported. Considering the large sample, H2 (community/ religious activities) received only weak support. The adjusted $R^2$ for the pooled sample was .44.

Table 1 also shows omega-squared coefficients, which indicate the relative strength of the effects (Keppel, 1982). While many of the omega-squared coefficients are small, several points should be kept in mind. First, omega-squared coefficients do not have an interpretation comparable to $r^2$, and in fact are always less than $r^2$ (Keppel, 1982). Further, since the distributions of omega-squared coefficients are unknown, it is impossible to make a conclusive judgment of how big or small each coefficient is. The interpretation of each coefficient is bound to the sample from which it was derived. Third, the omega-squared coefficients reported in Table 1 are not unlike those encountered in past research (Rynes & Lawler, 1983). Finally, the omega-squared coefficients are best used to compare the relative strength of effects within a sample. To that end, it is clear that illness displays the strongest effect on absence.

*Within-Subjects Analysis*

Within-subjects regression analysis was conducted for each participant. This yielded 133 equations (5 participants were excluded due to missing data). The results will be summarized here (a table which contains the 133 individual within-subjects regression equations can be obtained from the authors). There was wide variation in the extent to which the linear combination of within-subjects factors predicted absence decisions for each participant ($R^2$ ranged from .01 to .80). Average $R^2$ for the 133 participants was .48 ($SD = .23$).

The percentage of coefficients that were statistically significant (i.e., $p < .05, p < .01$, or $p < .001$) for each within-subjects factor was as follows: personal illness (100%), kinship responsibilities (30%), hobby/leisure (8%), work demands (5%), day of the week (5%), and community/ religious activities (3%). The pattern of these findings fits with theoretically based expectations about absence-taking (e.g., Johns & Nicholson, 1982) as will be addressed in the Discussion. These results provide empirical support for the salience of these expectations in a within-subjects design which focused on an employee's decision-making processes. Furthermore, the alternative explanation of social desirability bias (i.e, in this case, to say you would be absent because of illness) is unlikely given the

anonymity built into the data collection procedure as well as the indirect-ness of policy capturing (Arnold & Feldman, 1981).

The personal illness coefficient was positive and significant in all cases. In other words, illness led to a significantly higher estimated absence frequency for all participants. For the kinship responsibilities variable, all the significant coefficients were positive in sign. In other words, these individuals indicated they would more likely be absent when kinship re-sponsibilities were salient than when kinship responsibilities were not salient. For the hobby/leisure variable, 80% of the significant coefficients were positive in sign, and the remaining 20% of the coefficients were negative in sign. For eight of the participants, hobby/leisure opportunities led to a significantly higher estimated absence frequency. For two of the participants, hobby/leisure opportunities led to a significantly lower esti-mated absence frequency. For the work demand variable, about 84% of the significant coefficients were positive in sign, and the remaining 16% of the significant coefficients were negative in sign. Pressing work demands led to a significantly lower estimated absence frequency for six partici-pants. One participant was significantly more likely to be absent when there were pressing work demands than when work demands were light. For the day-of-the-week variable, about 71% of the significant coeffi-cients were positive. Five participants indicated that they would be sig-nificantly more likely to be absent on Monday or Friday than during the week. About 29% of the significant coefficients were negative. Two of the participants indicated they would be significantly more likely to be absent in the middle of the week than on the day before or after the weekend. All of the significant hobby/religious activities coefficients were positive. Four participants indicated they would be significantly more likely to be absent when they had some religious or community activity than when they did not have any such activities.

## Cluster Analysis Results

The error index, computed as described earlier, for the four most in-ternally similar clusters was 32.42. The error index for the three most similar clusters was 65.41. This represents a difference of 32.99, or a 102% increase in error. Up to that point, the largest increase in error was 8.95 (which was only a 43% increase in the error index). It should be noted that combining three clusters into two resulted in an increase in error (33.29) similar to that resulting from combining four groups into three. However, combining three into two groups represented only a 51% increase in the error index. Thus, the results suggested that four may be the optimal number of clusters. Based on the four clusters identified by the hierar-chical clustering procedure, each individual was classified into one of the four groups. In order to interpret the meaning of the clusters, regressions

of the within-subjects factors on the estimated likelihood of absence were calculated for each cluster. These results are reported in Table 2.

The regression weights and coefficients of determination in Table 2 demonstrate differences between the clusters. While interpretation of the clusters is subjective, in this case interpretation seemed relatively straightforward. Cluster 1 ($n$ = 98), where illness exerted a strong effect on absence decisions, was labeled "illness dominant." For these individuals, illness was the dominant factor in their absence decisions. The second cluster ($n$ = 18), where kinship responsibilities exerted a strong effect on absence decisions and illness exerted a moderate effect on absence decisions, was labeled "kinship responsibilities dominant, illness moderate." For these individuals, kinship responsibilities were a dominant reason to be absent, but illness also played a significant role. Cluster 3 ($n$ = 19), with an $R^2$ of only .001 and no significant influences on absence decisions, was labeled "no factors important" to indicate that none of the factors manipulated in the study affected these individuals' absence decisions. Finally, cluster 4 ($n$ = 3), where illness exerted a significant but weak effect on absence, was labeled "illness weak." Overall, the results indicated that absence decisions are not the same for all individuals. The meaning of the factors in absence decisions was different for certain distinguishable groups of individuals. It is important to note that since the fourth cluster was very small, and two other clusters were relatively

TABLE 2
REGRESSION WEIGHTS OF WITHIN-SUBJECT FACTORS BY CLUSTER

| Variable | Cluster | | | |
| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Illness | .595** | .358** | − .012 | .100* |
| | (.008) | (.017) | (.024) | (.062) |
| Community activities | .020* | − .003 | − .001 | .010 |
| | (.008) | (.017) | (.024) | (.062) |
| Day of the week | .032** | − .006 | − .007 | .003 |
| | (.008) | (.017) | (.024) | (.062) |
| Hobby/leisure activities | .014* | − .021 | − .000 | − .003 |
| | (.008) | (.017) | (.024) | (.062) |
| Kinship responsibilities | .070** | .610** | .026 | .003 |
| | (.008) | (.017) | (.024) | (.062) |
| Work demands | − .040** | − .012 | .024 | − .004 |
| | (.008) | (.017) | (.024) | (.062) |
| $R^2$ | .362 | .501 | .001 | .010 |

Note: Estimates are standardized regression coefficients. Standard errors are given in parentheses.
* $p < .05$.
** $p < .01$.

small, some degree of caution probably is warranted in interpreting these clusters.

In order to understand what factors might separate individuals in the clusters, a discriminant analysis was performed. The first discriminant function, which was the only significant function, had a moderately high degree of discrimination. The canonical correlation was .52. The Wilks' Lambda statistic was .61 ($\chi^2 = 64.38$; $p < .01$), again indicating that the variables provided a significant and moderately high level of discrimination between the groups. Although the function was significant, there was some overlap between the groups. Overall, 51% of the individuals were correctly classified. With four groups on average, a 25% classification rate would be expected based on chance alone, although one would expect more individuals to be classified in group 1 since it was the largest cluster. Thus, the 51% classification rate is double to that expected by chance.

More specifically, for the illness dominant group (cluster 1), 49% of the individuals were correctly classified (29% were predicted to be in cluster 2, 20% were predicted to be in cluster 3, and 2% were predicted to be in cluster 4). For the kinship responsibilities dominant, illness moderate subgroup (cluster 2), 50% of the individuals were correctly classified (22% were predicted to be in cluster 1, and 28% were predicted to be in cluster 3). For the no factors important group (cluster 3), 58% of the individuals were correctly classified (32% were predicted to be in cluster 1, and 5% were predicted to be in clusters 2 and 4). Finally, all individuals were correctly classified in the illness weak group (cluster 4).

The following variables had the highest discriminant coefficients (standardized coefficients are in parentheses): sex (.44), kinship responsibilities (.54), organization tenure (.55), past absence ($-.64$), and the degree to which absence is seen as voluntary ($-.67$). Thus, these variables were the most powerful in classifying individuals into the four groups. In order to interpret the discriminant coefficients, and because there can be differences between groups even if the discriminant coefficient is relatively low, one-way analysis of variance was conducted. Based on the one-way results, pairwise comparisons were made between the groups using the between-subject variables. Alpha inflation was controlled using the Duncan procedure.

Table 3 indicates that a number of differences existed between the groups. Individuals classified as part of the illness weak group (cluster 4) were significantly older than individuals in the no factors important group (cluster 3), and had significantly more organization tenure and kinship responsibilities than individuals in the illness dominant group (cluster 1). Individuals in the kinship responsibilities dominant, illness moderate group (cluster 2) were significantly more likely to be married than indi-

TABLE 3
MEANS OF BETWEEN-SUBJECT VARIABLES FOR EACH CLUSTER

| Variable | Cluster | | | |
| --- | --- | --- | --- | --- |
| | 1 | 2 | 3 | 4 |
| Education | 2.49 | 2.50 | 2.39 | 3.00 |
| | (0.08) | (0.20) | (0.14) | (1.00) |
| Age | 40.07 | 38.78 | $37.00^d$ | $48.67^c$ |
| | (1.06) | (1.99) | (1.71) | (6.77) |
| Organization tenure | $7.09^d$ | 8.56 | 7.45 | $13.00^a$ |
| | (0.56) | (1.47) | (1.54) | (5.57) |
| Married | $0.55^b$ | $0.72^a$ | 0.69 | 0.67 |
| | (0.05) | (0.11) | (0.21) | (0.33) |
| Number of dependents | $1.08^d$ | 1.50 | 1.38 | $2.67^a$ |
| | (0.13) | (0.27) | (0.34) | (1.76) |
| Male | $0.43^{c,d}$ | $0.28^{c,d}$ | $0.66^{a,b}$ | $1.00^{a,b}$ |
| | (0.05) | (0.11) | (0.11) | (0.00) |
| Income contribution | 74.60 | 69.89 | 83.89 | 63.33 |
| | (2.77) | (6.18) | (5.27) | (18.56) |
| Service/maintenance | $0.82^{c,d}$ | $0.78^{c,d}$ | $1.00^{a,b}$ | $1.00^{a,b}$ |
| | (0.04) | (0.10) | (0.00) | (0.00) |
| Subjective well-being | 61.90 | 59.91 | 60.47 | 53.33 |
| | (1.13) | (2.31) | (2.41) | (13.04) |
| Job satisfaction | 46.69 | 44.44 | 46.22 | 45.53 |
| | (1.87) | (3.85) | (3.50) | (11.22) |
| Past absence | $27.74^d$ | $30.49^d$ | $26.89^d$ | $14.67^{a,b,c}$ |
| | (0.84) | (2.53) | (2.17) | (1.76) |
| Intent to be absent | 37.67 | 39.06 | 34.74 | 27.67 |
| | (1.26) | (2.93) | (2.76) | (8.99) |
| Absence seen as voluntary | $54.28^{c,d}$ | $53.49^{c,d}$ | $45.26^{a,b}$ | $41.67^{a,b}$ |
| | (1.27) | (2.87) | (3.69) | (9.33) |
| N | 98 | 18 | 19 | 3 |

*Note.* Standard errors are given in parentheses.

[a] Significantly ($p < .05$) different from cluster 1; [b]significantly ($p < .05$) different from cluster 2; [c]significantly ($p < .05$) different from cluster 3; [d]significantly ($p < .05$) different from cluster 4.

viduals in the illness dominant group. Individuals in clusters 3 and 4 were significantly more likely to be male, to be employed in service/ maintenance (blue collar) jobs, and to see illness as voluntary than individuals in cluster 1 or 2. Finally, individuals in cluster 4 were significantly less likely to report being absent in the past than individuals in cluster 1, 2, or 3.

In order to construct profiles of individuals in each cluster, Table 4 provides descriptions of individuals in each cluster. Descriptions are based on the lowest and highest value for each variable. Although interpretation of these profiles is subjective, some patterns emerge. Individu-

TABLE 4
DESCRIPTION OF DIFFERENCES BETWEEN ABSENCE CLUSTERS

Group 1 (illness dominant)
  Least organization tenure*
  Least likely to see absence as voluntary*
  Most likely to be single*
  Fewest number of children*
  Highest subjective well-being and job satisfaction
Group 2 (dependent-dominant, illness-moderate)
  Most likely to be married*
  Most likely to be female*
  Lowest job satisfaction
  Absent most often in the past*
  Intend to be absent most often in the future
Group 3 (no factors important)
  Least educated
  Youngest*
  Mostly men*
  Most blue collar positions*
  Contribute most income to household income
Group 4 (illness weak)
  Most educated
  Oldest*
  Most organization tenure*
  Most likely to be male*
  Contribute least income to household income
  Blue collar position*
  Lowest subjective well-being
  Absent least often in the past*
  Intend to be absent least often in the future
  Most likely to see absence as voluntary*
  Most number of children*

* Subgroup mean is significant from mean of at least one other subgroup (see Table 3).

als in the illness dominant group were more likely to be single, to be less experienced on the job, to have fewer children, to have high subjective well-being and job satisfaction, and to see absence as voluntary. On the other hand, the typical individual in the kinship responsibilities dominant, illness moderate group was a married female with low job satisfaction and the highest self-reported absence rate. The typical individual in the no factors important group was a young, relatively uneducated male, working in a blue-collar job that contributed the most money to total household income. Finally, the typical individual in the illness weak group was an older, experienced, educated male, working in a blue-collar position that contributed the least amount of money to total household income. This typical individual in cluster 4 had low subjective well-being, but also a low absence rate and the most number of children.

In sum, because we assessed the pooled effects of the within-subjects factors after controlling for relevant between-subjects factors, our research strategy lends further support to the idea that beyond controlling for individual differences, some employees engage in a systematic decision-making process related to being absent from work. Thus, both individual differences and decision-making factors are important: prior research has typically examined either individual differences or decision making, but not both. Furthermore, the importance of these factors is not the same for all individuals; our results suggested clusters of individuals in the factors that influence absence decisions. These clusters displayed significant individual differences between them as well.

## DISCUSSION

The focus of this study was on the substance of absence decisions to provide an assessment of the phenomenological field within which absence occurs (Johns & Nicholson, 1982). We were interested in determining whether absence may be phenomenologically unique (the psychological meaning of absence may be different for individuals). Thus, we used a mixed experimental design. Specifically, we conducted a within-subjects assessment of each subject's decision to be absent, as well as a between-subjects assessment of the possible differences between individuals in their decisions to be absent.

The findings regarding the between-subjects influences on absence generally are consistent with past absence research. Job satisfaction explained a significant amount of the variance in absence decisions. Because in the present study the measurement of absence across situations is likely to raise the base rate of the phenomenon, it may be, as Hulin (1991) suggests, that inconsistent results between absence and job satisfaction depend on the distribution of absence.

Subjective well-being also was significantly associated with absence decisions. Gerhart (1991) has correctly pointed out that past dispositional research has provided little evidence regarding the practical effects of disposition. Absence has been found to represent a substantial fiscal expense to organizations (Mirvis & Macy, 1976; Steffy & Maurer, 1988), which has been linked directly to employee attitudes (Cascio, 1987; Martocchio, 1992; Steffy & Maurer, 1988). Thus, the association between subjective well-being and absence decisions suggests that dispositional states may in fact present implications for organizations, although it should be noted that the effect was quite modest. Furthermore, there are several practical problems in attempting to reduce absence by raising subjective well-being levels of workers. First, subjective well-being is often thought of as a dispositional state, and thus difficult to change (Judge, 1992). Second, attempts to alter the subjective well-being of or-

ganizational members poses a legal and ethical concern. As noted by Judge (1992), if subjective well-being is unrelated to productivity, attempts to change the well-being of workers would be questionable legal and ethical standing.

Those who intend to be absent are more likely to evaluate a given scenario as leading to absence on their part. Absence intentions in effect may control for many unmeasured differences between individuals that affect both their intention to be absent and their evaluation of a given absence-inducing scenario. The effects of age and kinship responsibilities on absence decisions are consistent with past research (Rhodes & Steers, 1990). Finally, those that contribute the most to family income are less likely to consider themselves as being absent, perhaps suggesting that those who can least afford to be absent are absent less.

Our within-subjects analyses revealed that the relative importance of the antecedents of absence decisions varied substantially. Some factors that resulted in significantly higher estimated absence for some individuals led to significantly lower estimated absence for others (e.g., hobby/ leisure activities, work demands, day of the week). In addition, the average $R^2$ showed that the overall combination of these factors varied in importance for each individual. Based on these general findings, absence may have a phenomenologically different meaning for individuals (Johns & Nicholson, 1982). This conclusion is tentative: while our design permits a detailed within-subject assessment of the antecedents of absence decisions, it falls short of idiographic research strategies that may be more suitable for examining phenomenology (Burrell & Morgan, 1979).

A detailed look at the within-subjects results indicates that personal illness was the most salient antecedent of absence decisions. This finding is consistent with prior research (based on between-subjects designs) which showed that personal illness was used most often as a reason stated by employees for their prior absence as well as a probable reason for future absences from work (Morgan & Herman, 1976; Nicholson & Payne, 1987). One explanation for this finding is that societal norms treat personal illness as an acceptable reason for absence from work (Johns & Nicholson, 1982; Nicholson & Johns, 1985; Nicholson & Payne, 1987). A further explanation for this finding is that norms and attitudes facilitate enactment of the "sick role" (Smulders, 1980). Future research should attempt to establish the reason for the salience of personal illness as an antecedent of absence decisions based on these explanations.

An alternative explanation, based on expectancy theory, is that using personal illness as a reason for absence is instrumental to the attainment of motivating outcomes associated with not being in the workplace when scheduled (Morgan & Herman, 1976). Specifically, the organization under study provides individuals with a number of *paid* absence days that are

designated for personal illness. Proof of illness (e.g., a doctor's note establishing illness) is not required by the organization. These structural factors not only serve to legitimize absence, but also provide incentives for employees to advance personal illness as a reason when they decide to miss work when scheduled. Prior research provides indirect support for these explanations (e.g., Dalton & Perry, 1981; Winkler, 1980).

Given the perceived acceptability of personal illness as a reason for absence (Rushmore & Youngblood, 1979), it is not unreasonable to expect individuals to advance personal illness as an important factor (Morgan & Herman, 1976; Nicholson & Payne, 1987). The anonymity of our subjects' responses and prior research findings, which show that policy capturing tends to minimize social desirability response bias (Arnold & Feldman, 1981), make it reasonable to assume that the salience of personal illness was not a response artifact. Thus, the strong effect of illness on individuals' absence decisions within a policy-capturing framework may suggest that illness in fact does cause the majority of absences, rather than merely being an attributional phenomenon. It would be useful for future research to compare absences by actual cause with worker attributions of past absence behavior.

A further look at the within-subjects results reveals that the other decision-related factors such as kinship responsibilities, hobby/leisure activities, work demands, day of the week, and community/religious activities were significant for a minority of the subjects. At first glance, one might conclude that these factors are irrelevant to one's decision to be absent; however, more careful consideration would suggest otherwise. First, elicitation interviews were used as a basis for identifying reasons individuals consider when making a decision to be absent from work. Thus, we are confident that we included relevant factors. Second, it is well documented that the occurrence of absence for most individuals (regardless of the antecedent) is a low-base-rate phenomenon (e.g., Rhodes & Steers, 1990). In other words, while most employees are absent very little or not at all, only relatively few are absent very often or for long periods of time. Thus, when considering absence decisions, which represent only one antecedent of the absence phenomenon, the relatively low importance of these factors for some is not surprising.

The results from the cluster analysis suggest that the importance attached to the factors hypothesized to predict absence decisions is not the same for all individuals. Furthermore, while the importance of these factors was not the same for all individuals, neither was it different for all individuals. We identified four relatively distinct subgroups of individuals based on the within-subject factors hypothesized to influence absence decisions. Because three of these subgroups were small relative to the first group, care should be exercised in generalizing these clusters to other

populations. Overall, the results indicate that while illness was the dominant factor in absence decisions for most individuals (roughly 2 of 3), it clearly was not for all. In fact, for one subgroup, while illness exerted a moderate effect on the estimated likelihood of absence, kinship responsibilities exerted the dominant effect. For the other two groups, illness exerted a weak effect or no effect on absence decisions.

Scientifically, these results indicate support for Johns and Nicholson's (1982) argument that the meaning of absence, and the factors that cause it, is not the same for all individuals. While perhaps the meaning of absence-inducing events is not phenomenologically unique to all individuals, our results do suggest some uniqueness between subgroups of individuals. Further work replicating and extending these results, necessarily utilizing within-subject designs, seems warranted.

Based on the subgrouping of individuals from the cluster analysis, we used between-subjects factors to seek to understand how these subgroups differed. The discriminant analysis did a reasonably good job separating the subgroups of individuals and identified several variables that did the best job of separating the groups. Specific differences between the average levels of between-subjects factors for each subgroup, and profile descriptions of the subgroups, can help us understand how, and perhaps why, the groups are different.

Members of the largest subgroup (71% of all individuals), the illness dominant group, were likely to be single with few or no children, relatively inexperienced in their jobs, and likely to see absence as voluntary. The reason that illness was the dominant reason for absence of this group may be that if an individual is single with few or no children, any absence that he or she has is likely to be due to illness. Further, because illness was seen by the subjects as the least voluntary reason for absence, it appears logical that overall they would see absence as involuntary.

Members of the next largest subgroup (14% of all individuals), the kinship responsibilities dominant, illness moderate subgroup, were likely to be married women and absent most often in the past. Interestingly, while individuals in this group did not have the highest number of dependent children, it was the most important factor in their absence decisions. Perhaps the reason for this lies in the fact that women typically shoulder the burden of child care (Couter, 1984; Googins & Burden, 1987; Kossek, 1990; Northcott, 1983; Pleck, 1985). When a dependent is ill, it is typically the woman who stays at home (Northcott, 1983). Miller (1984) suggested that women have higher absence rates because women may have less labor force attachment due to the often supplemental nature of their salaries. Our findings do not support this argument, as individuals in this subgroup did not contribute significantly less income to the household than their spouse.

The subgroup members with apparently no factors explaining their absence decisions (13% of all individuals) typically were young males working in blue-collar positions. Since health is related to age (Campbell, Converse, & Rodgers, 1976), and these individuals had fewer children than average, they may have little reason to be absent. Finally, the typical member of the illness weak group (2% of the sample) was an older, more experienced male working in a blue-collar position who reported being absent least often in the past. This is consistent with past evidence that those with high levels of organizational tenure are absent less often (Nicholson, Brown, & Chadwick-Jones, 1977). George (1989) argued that this finding may reflect adjustment to work. Individuals who have had experience in a particular job or organization may have had time to make adjustments to the organization's absence culture and expectations. Thus, the few individuals in this group may report being absent less often due to greater adjustment to the work situation.

### Contributions and Limitations

By employing a mix of within- and between-subjects influences, the present study has added to the knowledge base regarding absence decisions in several ways. The absence *decision* was investigated using a policy-capturing design, which more accurately reflects the effects of the hypothesized influences on decision making (Nicholson, 1977). The between-subjects results supported illness as the dominant factor in absence decisions. On the other hand, the within-subjects analysis revealed substantial differences between individuals in the factors that would induce them to be absent. Results from the cluster analysis suggested reliable differences between groups of individuals. Thus, the within-subjects analysis allowed us to suggest that absence decisions are not functionally and psychologically equivalent for all individuals. This conclusion could not have been reached with data drawn from a purely between-subjects design. Based on these results, it appears that the assumption that the causes of absences are constant across all individuals is a not a sound one. If our results are valid, scientific understanding and practical applications regarding absence should consider the individual.

Although the results obtained in this study shed light on an employees' absence decisions, limitations should be mentioned. One limitation is external validity. Potential problems with external validity were minimized by having a sample of employees who were similar to the group of subjects in this study generate the list of absence decisions. In addition to external validity issues, participants may experience fatigue during the experiment because of the large number of descriptions they are often asked to consider. However, in the present study the within-subject $R^2$'s were sufficiently high for most of the respondents, which indicates that

subjects demonstrated systematic consistency in the factors they considered when indicating their decisions.

Further, fatigue might be indicated by lower $R^2$'s for the later scenarios compared to the earlier scenarios. In such a case, respondents would be less likely to read each scenario carefully, making invariance in the dependent variable more likely and systematic variance explained in the dependent variable less likely. However, this was not the case. In fact, variance in the dependent variable explained by the independent variables was slightly *higher* in later scenarios. Thus, fatigue does not appear to limit the generalizability of these results.

Another limitation pertains to our decision not to replicate scenarios. We did not replicate cue combinations as there was a sufficiently large number of unique scenarios to consider (i.e., 96). By not including cue-combination replications, there was a trade-off between having the data to assess test–retest reliability and not burdening the respondents with too many scenarios or risking fatigue. We chose not to assess test–retest reliability as we were not concerned with the stability of absence decisions over time. Given our focus on establishing *whether* absence decisions could be modeled, our assessment of internal consistency reliability (as indexed by the within-subjects $R^2$'s) was the more critical reliability estimate.

Finally, one might criticize these findings on the grounds that subjects were asked to make absence decisions in a contrived setting rather than in the context in which absence decisions are made—the field (Cook & Campbell, 1979). In particular, there was very little resemblance between the context in which we conducted our study and the context in which an individual makes an absence decision (i.e., our subjects were taking time from their jobs to respond to our survey which contained hypothetical, but realistic, scenarios versus anticipating being absent from work). While it is true that subjects were asked to make these decisions in a contrived setting, our empirically based hypotheses were strongly supported. Furthermore, the effects of the relatively stable dispositional factors, whose assessment should be unaffected by the study's context, were consistent with the empirically based hypotheses. Therefore, the lack of resemblance between the study's context and the context in which absence decisions are typically made makes generalizations to the "real-life" setting stronger (Mook, 1983).

## CONCLUSION

The present study identified both within- and between-subject factors that contribute to absence using a study design intended to examine the *decisions* to be absent. While illness exerted the strongest influence on absence decisions, several other within- and between-subject influences

were found to contribute to the decision to be absent. Further, wide variance between individuals in the importance of the factors in absence decisions suggests that the factors that are thought to cause absence do not have equivalent meaning for all individuals, as suggested by Johns and Nicholson (1982). In addition to replicating the results found in the present study, future research should examine whether a link exists between absence decisions as well as individual differences, as assessed in a mixed design, and absence occurrences. Such research will provide insights into the relative effects of decision-making factors and individual differences on absence in a single experiment. Another suggestion for future research extends the prior recommendation by mixing qualitative research methods with quantitative research methods (Jick, 1979) to complement prediction with understanding participants' subjective interpretation of potentially absence-inducing events.

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