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ORGANIZATIONAL STRESS AS THREAT TO REPUTATION: EFFECTS ON ANXIETY AT WORK AND AT HOME

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This study's premise is that job stressors that threaten an employee's reputation with his or her supervisor are particularly likely to generate anxiety symptoms that carry over from work to home. Thirty-six raters, primarily working accountants, identified job stressors as high or low on threat to reputation. Independently, 102 accountants rated their own exposure to these stressors and their anxiety at work and home. As predicted, the high-threat stressors were the most likely to generate home-experienced anxiety, and work-experienced anxiety served as a key mediator. Implications relating to models of work and family well-being are discussed.

Employers are increasingly concluding that their ability to attract and retain a competent workforce may depend on their ability to foster work conditions that minimize the interference of work and home life with each other (e.g., Kraut, 1990; Rosen, 1991). These conclusions are accompanied by a growing body of research suggesting that work and home stressors, or the demands each makes, can spill over, generating interpersonal conflict and negative emotional states in both their original setting and the other setting (e.g., Bolger, DeLongis, Kessler, & Wethington, 1989; Duxbury & Higgins, 1991; Frone, Russell, & Cooper, 1991; Kanter, 1977; Kirchmeyer, 1992; Staines, 1980; Zedeck & Mosier, 1990). Despite this evidence, little is known about the generic properties of stressors that increase or decrease the likelihood of such spillover effects. Knowledge of such properties could contribute to prevention-oriented theory targeting particularly harmful organizational stressors for intervention.

As a step toward informing such theory, we tested the proposition that threat to an individual's reputation with his or her supervisor or manag-

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er is one such generic property of organizational stressors. We hypothesized that stressors that threaten reputation are particularly likely to generate emotional strains that carry over from work to home.

It is assumed that such threats generate emotional distress because the undermining of reputation can lead to loss of important resources that supervisors control (e.g., Pfeffer, 1978). Such resources range from the inherent value of being viewed favorably by a supervisor (Crowne & Marlowe, 1964) to the instrumental value of a good reputation, which can give access to powerful rewards and outcomes such as pay, title, role responsibility, and continued employment.

It is further hypothesized that because such a threat attacks fundamental individual needs, the experience of emotional distress will be carried over from work to home. If so, work-experienced emotional distress should statistically mediate the effects of such threats on home-experienced distress.

THEORETICAL BACKGROUND

Threat to Reputation as a Powerful Stressor

A considerable body of research suggests that people are concerned about their reputations because how others see them significantly determines their own self-esteem (e.g., Cooley, 1902/1964; Eden, 1990; French, Sherwood, & Bradford, 1966; Mead, 1934; Rosenthal, 1985). The need to maintain self-esteem is one of the most powerful and pervasive of all social needs (cf. Leary & Kowalski, 1990: 37) and has been identified as a key component in several theories of positive mental health (e.g., Allport, 1955; Jahoda, 1958). Even without feedback from powerful others about their reputations, people are likely to show increases or decreases in self-esteem depending upon whether they think they have made a good or bad impression (e.g., Darley & Goethals, 1980; Reis & Gruzen, 1976). Because of the salience of threat to reputation, people engage in a wide array of impression management strategies aimed at generating positive reputation (e.g., Baumeister & Tice, 1986; Goffman, 1959; Leary & Kowalski, 1990; Salancik & Meindl, 1984).

Iterating these themes, when employees are asked what characterizes threats, they describe situations that combine the potential for personal loss, negativity, threat to self-esteem, and control by (powerful) others (Jackson & Dutton, 1988: 375).

Selecting Anxiety as the Dependent Variable

In this study, we focused on threatened rather than already-experienced loss of reputation. Threat is defined as the perception of possible negative future outcomes (Lazarus, 1966). Consequently, we examined state anxiety as the most appropriate indicator of distress from such threat because anxiety is characterized as a response to possible future events (Archer, 1979). In contrast, depression has been characterized as a response

to the perception that a negative event or outcome is a certainty (Abramson, Metalsky, & Alloy, 1989). State anxiety, as distinguished from trait anxiety, is defined as a temporary elevation in a combination of emotional and physiological symptoms such as tension, apprehension, nervousness, and worry (Spielberger, 1983).

Hypothesis 1: Job stressors that threaten an employee's reputation with his or her supervisor are particularly likely to generate symptoms of anxiety that carry over from work to home.

The rationale is twofold: (1) the need to maintain self-esteem is one of the most salient of all needs; (2) an individual's self-esteem depends significantly on that person's perception of his or her reputation. In the workplace, the most important source of that reputation is the supervisor because the supervisor controls powerful rewards that convey the employee's worth.

If this hypothesis is confirmed, it would suggest that threat to reputation is a generic property of job stressors. In that case, potential stressors such as role conflict and lack of feedback could have different impacts on well-being, from work setting to setting. That impact would depend on the degree to which coping with that particular stressor was critical in establishing an individual's reputation as a valued employee.

METHODS

This section has two subparts. In the first, we describe how we identified stressors that predict carryover of anxiety from work to home and stressors that do not in a group of accountants. In the second, we describe how we used a second, independent, sample to determine if the stressors that lead to carryover are the same ones that are most likely to threaten reputation at work.

Selecting High- and Low-Threat Stressors and Documenting Carryover Effects

Respondents. Respondents were 102 staff accountants from two public accounting firms located in a large metropolitan area in the eastern United States. Their average age was approximately 30 years (*s.d.* = 8), and two-thirds of them were between 20 and 30. Their median tenure in their present firms was two to three years, and 88 percent of the sample had been on the job at least one year.

Data collection. A self-administered questionnaire dealing with job stress and well-being was distributed to all staff members of the two firms in September 1991. With each questionnaire was a cover letter indicating that participation was voluntary, that only the investigator would have access to the individual questionnaires, that the results would be available to the participating sites in the form of general scientific findings, and that the employer endorsed participation in the study. Respondents also re-

ceived a prepaid return envelope for the questionnaire. In addition, they were asked to return a separate prepaid postcard that would identify those who had returned the questionnaire and enable follow-up of those who had not returned the questionnaire.

Response rates. The sample represents a 69.4 percent response rate. The two firms had individual response rates of 77 and 61 percent. We combined the data from the two in the analyses because the firms did not differ significantly or notably on the variables assessed in this study or on the patterns of relationships reported. The one interfirm difference that appeared made no conceptual sense, and chance would predict about one difference.

There were 50 males and 52 female respondents, and each subgroup had the same response rate, 69 percent. Senior, middle-level accountants were more likely to return their surveys (97% return rate) than upper-level accountant managers and accountants at other levels (54 to 76% return rates). Analyses, however, revealed few systematic differences among the different types of accountants. High-level accountant managers reported lower levels of home anxiety than other accountants, but were no different from the others with regard to work anxiety. Accountant managers were also less likely to report being inadequately trained or skilled for their jobs, a high-threat stressor, but they were not different from other accountants on other stressors judged to be strong threats to reputation. There were too few respondents in each accountant category to allow a search for subgroup differences in the main findings of the study.

There was only one significant gender difference in mean levels of the study variables: Men were less likely to report inadequate training ($F_{2,99} = 7.64, p < .01$). This difference had no effect on the findings.

Measures. For all measures except the demographic ones, we used multiitem indexes, all of which had coefficients of internal reliability (r_{kk}) between .60 and .90. Table 1 presents the index means, standard deviations, alphas, and first-order correlations among the measures. All measures in the table were judged to have sufficient variance to be used in analyses. The content of all measures except Spielberger's (1983) measure of state anxiety can be found in Doby (1992).

To measure job stressors, we assessed 13 dimensions of task, job, and role characteristics from the Michigan Organizational Assessment Questionnaire (MOAQ; Cammann, Fichman, Jenkins, & Klesh, 1983). Also included was a newly generated self-report index of sex discrimination. The questions in these indexes used stems describing a characteristic of the job, such as "My job allows me to control my work pace," coupled with a seven-point response scale ranging from 1, "strongly disagree" to 7, "strongly agree."

Of these dimensions, we selected for study those that either (1) showed evidence of being stressors and potential evidence of generating carryover of anxiety from work to home or (2) did not. Eight stressors met the first requirement. They are (1) lack of feedback, which dealt with an individual's inability to tell how well he or she is performing, inadequate

TABLE 1
Means, Standard Deviations, Alphas, and Correlations Among Measures of Job Stressors and State Anxiety^a

Variables	Means	s.d.	1	2	3	4	5	6	7	8	9	10
High-threat stressor												
1. Lack of feedback	2.8	1.0	(.73)									
2. Training inadequacy	3.1	1.3	.33***	(.69)								
3. Role overload	3.7	1.3	.31**	.26**	(.67)							
4. Role ambiguity	2.6	1.1	.46***	.49***	.38***	(.72)						
Low-threat stressor												
5. Lack of control	3.7	1.4	.47***	.37***	.24*	.39***	(.89)					
6. Lack of meaningfulness	2.3	0.8	.54***	.03	.07	.11	.27**	(.79)				
7. High interdependency	5.6	1.2	.04	-.15	.13	.23*	.26**	.18	(.69)			
8. Role conflict	3.7	1.3	.22*	-.10	.36***	-.10	-.06	.11	.15	(.61)		
Anxiety experienced												
9. At work	43.7	10.4	.46***	.41***	.48***	.42***	.29**	.12	.20*	.16	(.90)	
10. At home	32.5	8.9	.40***	.30**	.27**	.29**	.05	.15	.01	.21*	.51***	(.90)

^a N = 100-101 (some data missing). Estimated internal reliabilities are in parentheses. Lower-bound reliabilities for state anxiety measures are from data by Spielberger (1983) presented for numerous age-by-gender subgroups.

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

opportunity to work on all aspects of a task until its completion, failure of a task to represent a functional whole, and inability to see the results of one's work ($r_{kk} = .73$), (2) training inadequacy, including lack of relevant job skills ($r_{kk} = .69$), (3) role overload ($r_{kk} = .67$), (4) role ambiguity ($r_{kk} = .72$), (5) lack of control, which dealt with inadequate freedom to set the work pace and decide what to do ($r_{kk} = .89$), (6) lack of job meaningfulness, in terms of little challenge and predictability ($r_{kk} = .79$), (7) high interdependency with others ($r_{kk} = .69$), and (8) role conflict, or having to satisfy conflicting demands within the work setting ($r_{kk} = .61$). The internal consistencies (α) of these indexes were 1 to 12 points higher than those Cammann and his colleagues reported (median = 6 points higher). The item content was identical to that of the MOAQ indexes except in one case in which we removed an item because it failed to show adequate convergent validity and in two cases in which a single item failed to show discriminant validity between indexes.¹

Significant, negative associations between these eight dimensions and the MOAQ index of job satisfaction provides partial evidence that they were stressors (r 's = $-.22$ to $-.50$ [average $r = -.38$], all at least $p < .05$). In addition, the measures were positively associated with the MOAQ index of intention to leave an organization (r 's = $.14$ (n.s.) to $.39$; average $r = .29$). These latter associations were lower, as might be expected because there are multiple influences on turnover (e.g., Carsten & Spector, 1987; Hulin, Roznowski, & Hachiya, 1985).

These findings replicate those of previous studies. Job dissatisfaction and other indicators of strain have been associated with situations involving lack of feedback from a task regarding performance and the task's impact (e.g., Hackman & Oldham, 1976), inadequate ability or training to carry out the job, lack of control, and lack of meaningfulness (e.g., Jackson, 1983; Karasek, Theorell, Schwartz, Schnall, Pieper, & Michela, 1988; Sutton & Kahn, 1987); high interdependence with others, a role dimension closely allied with role conflict (e.g., Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; King & King, 1990); role overload (e.g., French, Caplan, & Harrison, 1982); and role ambiguity and conflict (cf. Kahn & Byosiere, 1992).

Of the eight stressors studied, four showed significant and positive associations with home- and work-experienced symptoms of anxiety, and accordingly, were identified as having the potential to show carryover of anxiety from work to home settings. These four were lack of feedback, training inadequacy, role overload, and role ambiguity.

The other four job stressors did not show this potential for generating carryover, exhibiting either no association with home-experienced

¹ The item "On my job I perform a complete service" was removed from the index of lack of feedback, and the item "How much uncertainty is there in your job?" was removed from the index of lack of meaningfulness because these items failed to show adequate discriminant validity. One item, "On my job, most tasks are clearly defined," was removed from the index of role ambiguity to improve the reliability from $.63$ to $.72$.

anxiety or none with work-experienced anxiety. Those stressors were lack of control, lack of job meaningfulness, high interdependency with others, and role conflict.²

To measure *work- and home-experienced anxiety*, we asked respondents to complete Spielberger's (1983) measure of state anxiety twice, once with regard to anxiety experienced in the past week on the job and once with regard to anxiety experienced during the same period at home. The measure of anxiety experienced at work asked respondents to report on symptoms "during the busiest part of the workday" whereas the measure of anxiety at home referred to symptoms occurring "while relaxing away from work." We used these different phrasings to minimize noise from home stressors and increase the power of the design to detect carryovers from work to home.

Analytic strategy. Carryover would be said to occur if a job stressor produced work-experienced anxiety and that anxiety in turn produced home-experienced anxiety. As overall evidence of such effects, we searched for confirmation of the following five conditions (Baron & Kenny, 1986): (1) There should be a positive association between job- and home-experienced symptoms of anxiety. (2) There should be a positive and significant relation between the job stressor and the on-the-job experience of anxiety symptoms as well as (3) a significant and positive relation between the job stressor and home-experienced anxiety. (4) The work stressors should be more strongly correlated with work-experienced anxiety than with home-experienced anxiety because, if carryover occurs via work-experienced anxiety, then home-experienced anxiety should be further down the hypothesized causal path than the former. The further apart two variables are in a hypothesized causal path, the weaker should be their statistical relation. (5) The relation between the job stressor and home-experienced anxiety should drop significantly when the effects of the hypothesized mediator, work-experienced anxiety, are removed. Such an effect would further suggest that the job stressor led to work-experienced anxiety, which was in turn subsequently carried over into the home.

Failure to confirm any one of the preceding five predictions, for any particular stressor, would be sufficient to disconfirm its ability to generate carryover of anxiety symptoms. Confirmation of our central prediction would require demonstrating that the above pattern of results occurred for the stressors that a second set of respondents (described below) rated as being most likely to threaten reputation.

We used the four stressors predicted to be low in their ability to threaten reputation as a baseline against which to judge the effects of threat

² The six indexes that did not clearly fall into either subset were knowledge of results, work group support, and three measures of supervisory behavior—facilitation of work, demands, and bias on the basis of sex. Inspection of the content of these multiitem measures suggested that their lack of a clear pattern might have resulted partly from a lack of content homogeneity.

to reputation on spillover. All four fail to meet one of the fundamental conditions for spillover, a significant correlation with both work- and home-experienced anxiety.

Classifying Stressors in Terms of Threat to Reputation

Raters. The independent raters were 42 people taking a review course in preparation for the certified public accountant licensing examination. Usable data regarding the means and variances of these ratings were available from 36 to 38 of the raters, depending on the analysis. Of these raters, nearly all (90%) were working as accountants. The rest were either in banking or owned businesses (8%), or did not specify (2%). These raters reported working an average of 41 hours per week (s.d. = 8.6 hours) and had been with their firms an average of 43 months (2 months to 20.5 years). All were college educated. Nineteen were women, 17 were men, and 2 did not report their gender.

Data collection. Data were collected by a questionnaire that was distributed by the instructor of the review course. The predictions of the study were not mentioned to either the instructor or the raters. A cover letter informed the raters that the study dealt with work and well-being in the accountancy profession and that participation was voluntary and anonymous.

Content of the measures. The raters were presented with eight items,³ each of which described a situation representing a different type of stressor. Each situation was constructed so that it included those characteristics most predictive of the total score on the multiitem measure of the stressor used in the larger sample of accountants. To elicit ratings of threat to reputation, we asked the raters, "In your work setting, regardless of whether you face these situations or not, how damaging would each of these situations be to your immediate superior's view of you as a competent and dependable employee?" The dimensions "competent" and "dependable" were selected on the basis of findings suggesting that ability-competence and conscientiousness-dependability are two of the most fundamental factors in supervisory ratings of performance (Schmidt & Hunter, 1992), a widely researched indicator of work reputation.

Judgments of threat in each situation were made on a rating scale that ranged from 1, "extremely damaging," to 5, "no or almost no effect." For example, the text describing the first situation read as follows: "No feedback from task. It is impossible to tell from the work itself how well one is performing or what the impact of one's work is on the organization's productivity." To search for potential effects of interrater differences in exposure to each situation, the raters were also asked, "How much is each situation like or unlike your job?" (1 = exactly or almost exactly like my job and 5 = not at all or hardly like my job).

³ Copies of the texts of the measures used in the rating procedure or in the larger survey of accountants may be obtained from either author.

Reliability and potential bias. To estimate the amount of variance in the ratings accounted for by agreement among the raters, we computed their effective aggregate reliability using a formula recommended by Rosenthal and Rosnow (1991: 55). This reliability was .70, a level viewed as adequate for identifying situations the most and least threatening to reputation.

Additional analyses were performed to determine whether the ratings might be influenced systematically by personal experience with each type of stressor and by demographic characteristics of the raters. Only rater experiences with role ambiguity and role overload were associated significantly with how threatening each stressor was rated to be, and those relations were inverse ones ($r_{36} = -.32, p < .05$, and $r_{36} = -.52, p < .001$). Such an effect may suggest that exposure produces rater adaptation. However, we see no sound theoretical argument as to why this should be the case for only these two stressors and not the others.

No other associations between rater characteristics and the ratings of threat emerged. The ratings were unrelated to age, gender, hours worked, years in a current position, years in a firm, tenure status in a firm, and an index of rater's job-related self-esteem ($r_{kk} = .64$) adapted from Rosenberg's (1965) measure. Nor were the ratings influenced by the importance that the raters assigned to work as part of their lives. In sum, the results indicate a lack of systematic rater bias over a broad range of rater characteristics.

Table 2 lists the eight dimensions of job stressors and their mean ratings and standard deviations. A *t*-test for paired samples showed that the 38 accountants distinguished significantly between the four stressors that they rated most threatening to reputation and the four that they rated least threatening ($t_{37} = 4.97, p < .001$). The stressors rated most threatening to reputation deal with overload that interferes with being able to perform to everyone's satisfaction, lack of training and skill, lack of role-relevant knowledge, and lack of feedback. Feedback can be critical in letting em-

TABLE 2
Judged Threat to Reputation Posed by Job Stressors^a

Stressor Dimension	Means	s.d.
Rated high on threat		
Lack of feedback	3.16	1.31
Training inadequacy	3.45	1.29
Role overload	3.45	1.22
Role ambiguity	3.47	1.20
Rated low on threat		
Lack of control	2.95	1.16
Lack of meaningfulness	2.87	1.14
High interdependency	2.76	1.10
Role conflict	2.89	1.33

^a There were 38 raters.

ployees know whether they need to alter their behavior in order to enhance their reputations with their superiors (e.g., Bohra & Pandey, 1984; Leary & Kowalski, 1990).

Future research might examine whether these stressors are doubly threatening to employees because their supervisors will think poorly of them both for performing inadequately and for putting the supervisors' own reputations in jeopardy. This double threat is a plausible one. The stressors that were rated the least threatening to reputation appear to focus more on deficits of the job that might have little effect on a supervisor's reputation with her or his manager. These stressors included indicators of inadequate job enrichment, symptoms of too much interdependence with others, and role conflicts.

RESULTS

Unless otherwise noted, findings presented in the text are significant and were tested with two-tailed tests.

Comparison of the Carryover Model with Alternative Models

Work- and home-experienced symptoms of anxiety had a correlation of .51 ($p < .001$) and shared 25 percent of variance. This association supports but does not establish a work-to-home carryover.

The leftmost column of Table 3 lists the eight stressors grouped into those rated respectively as the most and least likely to threaten employee reputation. The first and third columns of data in Table 3 contain the sim-

TABLE 3
Effects of Statistical Partialing^a

Job Stressor	Home Anxiety ^b		Work Anxiety ^b		Partial r Work- and Home- Experienced Anxiety ^c
	r	Partial r	r	Partial r	
High-threat					
Lack of feedback	.40***	.19*♦	.46***	.29*♦	.39***♦♦
Training inadequacy	.30***	.10*♦	.40***	.30**	.45***♦
Role overload	.27**	.03♦	.48***	.40***♦	.45***♦
Role ambiguity	.29**	.08*♦	.42***	.32***♦	.44***♦♦
Low-threat					
Lack of control	.05	-.10	.29**	.31**	.51***
Lack of meaningfulness	.15	.10	.12	.05	.49***
High interdependency	.01	-.10	.20*	.22*	.50***
Role conflict	.21*	.15	.16	.06	.49***

^a Diamonds indicate the significance of the drop in variance explained attributable to partialing (Cohen & Cohen, 1983: 146); levels are the same as for asterisks (e.g., ♦ $p < .05$).

^b Anxiety experienced in the other setting is controlled.

^c The stressor indicated on the left is controlled; $r = .51$.

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

ple correlations of these stressors with home- and work-experienced anxiety. The correlations for the stressors that were rated as high on threat to reputation meet a second necessary condition for carryover: all four were positively and significantly correlated with home- and work-experienced anxiety ($r = .27$ to $.48$; average $r = .38$). In contrast, those job stressors rated as least threatening to reputation came from the set of stressors initially selected because they were uncorrelated with either home- or work-experienced anxiety ($r = .01$ to $.29$; average $r = .15$).

Above, we described the differences in how high- and low-threat job stressors were associated with anxiety in the two focal settings. We also examined whether high-threat stressors were more strongly associated with work-experienced anxiety than with home-experienced anxiety. If work-experienced anxiety is the intervening variable and is, accordingly, closer to such job stressors in the hypothesized causal path, then high-threat job stressors should correlate more strongly with work-experienced anxiety than with anxiety experienced at home.

A comparison of the coefficients in the first and third columns of data in Table 3 shows that such a pattern of correlations occurred for the high-threat stressors. Their correlations with work-experienced anxiety ranged from $.40$ to $.48$, explaining an average 14.4 percent of the variance in that variable. In contrast, the correlations of the high-threat stressors with home-experienced anxiety ranged from $.27$ to $.40$, explaining an average of only 9.2 percent of its variance. There was no such pattern of results for the job stressors predicted to be less threatening to reputation, their initial correlations with measures of anxiety being generally weak.

The first two columns of data in Table 3 present the association between the job stressors and home-experienced anxiety with work-experienced anxiety present and removed from the relation, respectively. When determining if such partialing produced significant drops in association, we used Bonferroni corrections to set the acceptable levels of significance. These corrections were used because, as is shown in Table 1, the measures of the four high-threat job stressors in particular were correlated positively and significantly with one another. Consequently, we set less than $.0125$ ($.05/4$) as the level of significance of a drop in association between the original and partialled coefficient and used an F -test of the difference between the two coefficients to determine significance (Cohen & Cohen, 1983: 146 [formula 4.4.2]).

In every case, removing the hypothesized mediator, work-experienced anxiety, produced a significant drop in the size of the relation between a job stressor and home-experienced anxiety; values of F ranged from 9.10 to 15.45 ($df = 1$ and 97–100, depending on missing data, all $p < .01$). As a mediator, work-experienced anxiety accounted for from 77 to nearly 100 percent of the initial variance shared between high-threat job stressors and home-experienced anxiety. The residual amount, ranging from 0 to 3.6 percent of the variance and averaging 0.9 percent, is small enough to be attributable to measurement error.

We examined the two other statistically possible mediating paths to see if any alternative model produced a stronger mediating effect. In the first alternative path model, home-experienced anxiety is the mediator between the high-threat job stressor and work-experienced anxiety. Data relevant to that model appear in the third and fourth columns of statistics of Table 3. In the second alternative path model, a job stressor is the mediator between work- and home-experienced anxiety. Data relevant to that model appear in the rightmost column of data in Table 3. We could find no parsimonious plausible rationale for these alternative models, and their explanatory power was, indeed, weaker than that of the model expressing the hypothesized carryover effects.

This conclusion was derived by comparing the power of the main model to that of each of the two alternatives. We compared the ratios of variance accounted for by the mediator of the main or stronger model to that accounted for by each alternative or weaker model.⁴ Those comparisons showed that from 1.28 to 3.19 times more variance in anxiety was explained when work-experienced anxiety was the mediator between each job stressor and home-experienced anxiety than when home-experienced anxiety was the mediator of the link between each job stressor and work anxiety. Similarly, from 2.2 to 5.2 times more variance in home-experienced anxiety was explained when work-experienced anxiety was the mediator between each job stressor and home-experienced anxiety than when each high-threat job stressor was the mediator between the two measures of anxiety.

DISCUSSION

It was hypothesized that when employees experience a threat to their reputations with their supervisors, they are particularly likely to experience anxiety that will be carried over into their home settings. This response was predicted on the grounds that perceived reputation is an important determinant of self-esteem, that need to maintain high self-esteem is a major motive, and that threat to reputation represents both potential frustration of this need and loss of highly valued resources. The convergence of results from the two sets of respondents in our study support this hypothesis.

Potential Threats to the Internal Validity of the Conclusions

Given enough cues, respondents might always answer a questionnaire in a manner consistent with experimenter expectancy (e.g., Rosenthal, 1985). In this study, achieving such consistency would have required the respondents to entertain the theory that some stressors were more threat-

⁴ Comparisons took this form:

$$\frac{((r^2 - \text{partial } r^2)/r^2)_{\text{stronger model}}}{((r^2 - \text{partial } r^2)/r^2)_{\text{weaker model}}}$$

ening to their reputations than others and more likely to elevate work- than home-experienced anxiety. Although the research design did not permit assessment of such response consistency effects, it had several elements likely to mitigate them: (1) respondents were not informed of the hypotheses and predictions, (2) the measures of stressors and affect were in different sections of a fairly long questionnaire, (3) the questionnaire administrators were not told of the hypotheses, and (4) the ratings of each stressor's potential to threaten employee reputation came from an independent sample and were generated in a setting completely different from the one in which we collected data on anxiety.

Differences in variance between the high- and low-threat stressors were also examined as a threat to internal validity. Inspection of standard deviations for the stressors (Table 1) shows that the high- and low-threat job stressors have identical average levels of dispersion ($s.d.s = 1.18$), and these do not differ from each other statistically. Accordingly, the higher association of high-threat job stressors with home and work anxiety cannot be attributed to differences in how the high- and low-threat stressors are distributed.

The stem of the measure of work-experienced anxiety asks respondents to report about symptoms during work, symptoms that are also assessed with regard to home. Such content overlap could spuriously cause the measure of work-experienced anxiety to appear as an intervening variable between work stressors and home anxiety. Convincing evidence of such an artifactual process would require that work-experienced anxiety be associated with all the job stressors and mediate the associations of all the stressors with home-experienced anxiety. As was detailed in Results, this is not the case. Instead, the pattern of results conforms largely to the prediction that spillover will be likely only for the high-threat stressors.

We also addressed alternative explanations for the effects of the high-threat stressors. The staff accountants who responded reported less exposure to high-threat job stressors (median = 2.95) than to low-threat ones (median = 3.70). Numerous studies show that people tend to have low expectancies for negative events and, as a consequence, the violation of such expectancies is particularly upsetting (Taylor & Brown, 1988). Future research might examine whether high-threat stressors bring about carry-over effects in part via violation of expectancies. Such findings could inform the scope of preventive interventions by helping organization members identify the cognitive and environmental antecedents of perceived threat.

Finally, as was noted in the Methods section, the high-threat stressors, but not the low-threat ones, appear to involve possible undermining of the supervisor's as well as the employee's reputation. Future research might explore whether fear for the reputation of one's supervisor independently increases the anxiety-producing properties of the high-threat stressors. Such an effect could occur, for example, if high-threat stressors evoked

guilt-inducing responses from a supervisor, such as “If you don’t meet this deadline, my job is going to be on the line.”

External Validity

At least four aspects of the study appear relevant to conclusions regarding its potential generalizability. One is that the relationships among the measures of stressors shown in Table 1 are very similar to those reported by other investigators in a variety of occupational and organizational settings (e.g., Cammann et al., 1983: 93; French et al., 1982; Fried & Ferris, 1987; Hackman & Oldham, 1976). Such similarity increases the likelihood that the respondents in this study reacted to stressors much like respondents from a wide range of occupations.

Second, the absence of notable differences between results for the two firms reduces the likelihood that the findings are an artifact of firm idiosyncrasies. Although it may be desirable to attempt replication in organizational settings that vary in size, hierarchical “tallness,” and other structural characteristics (e.g., Ivancevich & Donnelly, 1975), we have no strong hypotheses regarding how such variables might condition the effects reported here.

Third, the analyses were based on approximately equal numbers of women and men. We observed no notable gender effects in the magnitude of the relationships reported. A similar lack of gender effects has been reported by investigators examining related phenomena, such as the generation of home stressors by stressors from work (Bolger et al., 1989; Frone et al., 1991).

Fourth, we couched predictions at a genotypic level, dealing with stressors that threaten employee reputation but not specifying phenotypic stressors. As discussed below, the stressors that constitute threats to reputation in other occupations and settings may be different without undermining the basic conclusions of this study.

Future Directions for the Development of Theory

Confirmation through more rigorous designs. Neither theory nor data analyses suggested a more plausible or parsimonious model than the one in which work-experienced anxiety acts as the mediator between high-threat job stressors and home-experienced anxiety. Nevertheless, because of the cross-sectional design used here, results should be considered tentative until confirmed by more rigorous designs. Longitudinal panel survey designs would allow simultaneous evaluation of the strength of paths leading from job stressors to anxiety and the reverse, determinations that could have implications for preventive intervention. Such designs could allow researchers to determine if spillover effects are reversible and to look for determinants of such reversibility. Social support (Howe, Caplan, Foster, Lockshin, & McGrath, forthcoming) may, for instance be relevant at home, as diagnostic systems that generate corrective feedback (e.g., Van de Ven & Ferry, 1980) might be at work. Randomized field experiments could

directly test the dynamic properties of the theory through interventions that reduced stressors high on threat to reputation in one condition and, in the other condition, reduced low-threat stressors.

Contagion effects. Research suggests that emotional distress can be contagious. For example, if one partner in a couple is depressed, the other partner has an increased risk of depression (Coyne, Kessler, Tal, Turnbull, Wortman, & Greden, 1987). A natural extension of the current study would be to determine if the carryover of work-generated anxiety to home increases the risk of negative emotional states among others in households and whether there are patterns of couple-level coping that might attenuate both carryover and contagion at home (Howe et al., forthcoming).

Cultural differences in value systems. Whether the stressors that were judged threats to an employee's reputation with his or her supervisor in this sample of accountants are the ones that will prove threatening elsewhere may depend on the professional, organizational, and national cultures under study (e.g., Mitchell & Scott, 1990). For example, reputation among accountants may be threatened by stressors that interfere with ability to conform to standardization, whereas reputation among employees in R&D units may be threatened by stressors that interfere with ability to innovate. Similarly, in some organizational cultures, reputation may be threatened by stressors that interfere with being productive and knowing how to get the job done, themes reflected in the high-threat stressors from this study. In more collectivist, communally oriented cultures, such as "Ma Bell" before divestiture, "Mother Russia," and "Mother India," reputation with one's supervisor may be threatened by stressors that interfere with ability to manage social relationships (Cox, Lobel, & McLeod, 1991; Shaw, Fisher, & Randolph, 1991; Triandis, 1989)—stressors that fall into the low-threat-to-reputation category in this study.

Relation of findings to theories of work-family conflict. Zedeck and Mosier (1990; cf. Staines, 1980) have identified several models of the links between work and family well-being, several of which suggest that carryover might occur from home to work as well as the reverse. Measures of home threats were not included in this study, so the topic remains open for further investigation.

In one potentially germane model, spillover of stressors from one setting can generate stressors in the other setting (e.g., Bolger et al., 1989). The findings of this study suggest that one mechanism for generating such spillover may be anxiety in the face of threats to important motives. Research could determine which of several alternatives might interrupt this process. For example, should managers attempt to increase employees' commitment and effort to master workload and clarify role ambiguity? Perhaps not. According to conflict models of work-family links that posit a zero-sum process, such motivational strategies may provide benefits at work but bring sacrifices at home (e.g., Greenhaus & Beutell, 1985). Alternatively, improving training and the provision of constructive feedback may reduce the likelihood of such zero-sum effects. Embedded in such sci-

entific concerns lie those of ethics and values. For example, how much emphasis should employers put on cognitively training employees to leave their troubles behind, and how much on altering the organizational conditions that contribute to such spillover?

Conclusion

This study suggests that organizational stressors that threaten employee reputation can have negative consequences for emotional well-being that extend beyond the workplace. Replication across other occupational or organizational settings could be used to determine if and how variation in organizational and occupational culture governs why stressors take on the additional property of threatening reputation in some settings but not others. Confirmation and extension of this study's findings could guide identification of high-risk work environments and the most promising points for preventive organizational interventions.

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