

Coping With Workplace Stress: A Multiple-Group Comparison of Female Managers and Clerical Workers

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This study cross-validated and refined a causal model of workplace stress (B. C. Long, S. E. Kahn, & R. W. Schutz, 1992). Multivariate analysis of variance and multiple-group structural equation modeling were used to contrast female clerical workers ($n = 214$) with the original sample of managerial women ($n = 249$). Consistent with the effects of social roles, clerical workers had fewer coping resources, appraised the stress event as less controllable, experienced more work demands and less support, used relatively less engagement coping, and were more distressed and less satisfied than managers. Moreover, the personality disposition of agentic traits had a stronger influence on coping strategies for clerical workers than for managers.

Although recent research has aimed at the development of integrative models of the stress and coping process of employed women (B. C. Long, Kahn, & Schutz, 1992; Portello, 1996; Terry, Tonge, & Callan, 1995), little attention has been paid to the impact of institutionalized social roles on women's experience of work stress. Pearlin (1989) posited that greater vulnerability to stress may be attributable to social roles that reflect the "unequal distribution of resources, opportunities, and self-regard" (p. 245). Ironically, women in management and professional occupations have been the focus of considerable research that has examined the impact of work-related stress on adjustment (e.g., Amatea & Fong, 1991; Davidson & Cooper, 1984, 1988; B. C. Long et al., 1992; B. C. Long & Kahn, 1993; Snapp, 1992; Terry et al., 1995). In contrast, clerical workers, who have little workplace autonomy and control (Karasek, 1979) and commonly report work overload, underutilization of skills, few advancement opportunities, inadequate salaries (Haynes, 1991; Turnage & Spielberger, 1991), and low prestige (Yoder, 1994), have been relatively neglected. Recently, the advent of computer technology and the downsizing of organizations have contributed to additional pressures for clerical workers (Acker, 1992).

Stress management for employees tends to focus on the individual because of the implication that adaptive coping strategies can be learned (Matheny, Aycock, Pugh, Curlette, & Silva Cannella, 1986). Yet variations in the stress and

coping process may be due to influences from the larger social context (Lennon, 1989; Pearlin, 1989). To date, counselors know little about the influence of the work context (e.g., institutionalized social roles) on workplace stress and the stress adjustment process. Moreover, despite the fact that clerical workers constitute the largest segment of the female labor force, with close to 30% of all employed women in North America holding clerical and administrative support jobs (Statistics Canada, 1995), these relatively disadvantaged workers have received minimal attention in the counseling literature.

In a recent series of studies focused on women managers (B. C. Long et al., 1992; B. C. Long & Schutz, 1995), I and my colleagues examined the complexity of the stress and coping process using structural equation modeling (Jöreskog & Sörbom, 1989). The causal model was based on Richard Lazarus's theory of stress and coping (Lazarus, 1991; Lazarus & Folkman, 1984). Theoretical underpinnings and the empirical support for the causal model were detailed in B. C. Long et al. (1992). Briefly, the theoretical framework that guided the selection of variables in the model consisted of (a) antecedent coping resources, (b) mediating influences (appraisal, coping, and contextual variables), and (c) short-term outcomes. According to Lazarus and Folkman's model of stress, both situational appraisals of the stressor event and an individual's personal coping resources will influence the choice of coping strategies used in a particular situation. In turn, the pattern of coping responses will affect an individual's physiological and psychological well-being. Moreover, Lazarus's cognitive-phenomenological perspective predicts that an individual's appraisal of the demands and nature of the situation, rather than an objective assessment of the event, will influence the type of coping used.

As a first step in the model development (B. C. Long et al., 1992, Figure 1), a model was tested on data ($n = 249$ female managers) collected in three waves, each separated by 1 month. In this model, coping resources (i.e., relatively stable dispositional factors) consisted of demographic characteristics, Sex Role Attitudes, and Agentic Traits (e.g., instrumentality, self-efficacy, optimism) that influenced the mediating

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constructs. Contextual influences included Work Environment (demands and support) as well as Daily Hassles, which were either predictors of stress Appraisals or outcomes of coping, respectively. Stress Appraisals predicted coping strategy use, which in turn influenced the Distress and Satisfaction outcomes. Coping consisted of Disengagement Coping (i.e., thoughts and behaviors that focus attention away from the stressful event) and Engagement Coping (i.e., active efforts aimed at managing both problem- and emotion-focused aspects of the stressful event; Tobin, Holroyd, Reynolds, & Wigal, 1989).

In the second step, the stability and replicability of the model were established by testing data collected from 230 of the same women eight times over a 1-year period and from the women ($n = 135$) who remained in the study 1 year later (B. C. Long & Schutz, 1995). The main findings from the initial model testing were consistent with Lazarus's (1991) transactional theory of stress and coping. For example, stress Appraisals had a significant role in determining coping use, and Disengagement Coping was associated with greater Distress and Daily Hassles. The model also supported the influence of the personality disposition of agency on Engagement Coping. Agentic Traits were also implicated in several endogenous constructs (i.e., Work Environment, Daily Hassles, and Satisfaction). Furthermore, findings from the stability analyses indicated that virtually all constructs exhibited strong mean stability and that all multi-indicator constructs possessed stable factor loadings. The results provided evidence that Disengagement Coping, Appraisals, and Distress were influenced by some underlying, consistent trait not accounted for in the model. Finally, the model reliably represented the relationships among the measures taken at the three time periods with 1-month intervals and was replicated on data collected 1 year later.

Given the strength of these findings, the next step in the development of the model—and the purpose of the present study—was to test its validity on an independent sample in order to cross-validate it and to refine our conceptual understanding of the stress and coping process. Female clerical workers were selected as a group for meaningful comparison with managerial women because the sex-segregated and sex-stratified nature of clerical work is reflected in relatively powerless, low-status jobs that offer few opportunities to exert influence and to access organizational support (Rosenfield, 1989; Turner & Roszell, 1994). In addition to the greater power afforded women in management, women in prestigious occupations also have the opportunity to offset their role stressors with satisfactions such as financial freedom and status (Baruch, Biener, & Barnett, 1987; Verbrugge & Madans, 1985). Power is defined here as "influence by one person over others, stemming from a position in an organization, from interpersonal relationships, or from an individual characteristic" (Ragins & Sundstrom, 1989, p. 51).

On the basis of the occupational level and type of work performed by managers, I hypothesized that they would experience more interpersonal stressors and appraise stressful events as being more under their control than would clerical workers. This was predicated on evidence that

managers have more interpersonal conflicts at work because they are responsible for coordinating the activities of others, whereas clerical workers are more stressed over personal needs that are not being met in the workplace (Turnage & Spielberger, 1991). Furthermore, there is evidence that individuals who have low actual control over the work environment because of their subordinate roles (Hall, 1991) are also likely to experience lower levels of perceived personal control (Rosenfield, 1989).

I also hypothesized that in response to work-related stress, clerical workers would use more passive, acquiescent coping strategies (i.e., Disengagement Coping) and fewer active coping strategies (i.e., Engagement Coping) than managers would because of structural and social forces in the work environment. Kanter (1977) suggested that powerless jobs cause people to behave in powerless ways, a hypothesis that was supported by Mainiero (1986), who found that job dependency (i.e., degree of influence) was related to greater acquiescent coping. Gendered expectations of women, or what Nieva and Gutek (1981) labeled the sex role "spill over" effect, also affect the behaviors and attitudes of clerical workers (Pringle, 1989; Stiver, 1994). Moreover, there is evidence that employees who have "social-emotional support, information, structural mechanisms within the organization, or other forms of tangible, external aid" (Shaw, Fields, Thacker, & Fisher, 1993, p. 232) are more likely to use active coping and less likely to use avoidant coping efforts (Holahan & Moos, 1987).

Agentic characteristics and egalitarian sex role attitudes, stable dispositional factors that individuals draw on in response to workplace stress (Moos & Billings, 1982), were expected to be weaker for clerical workers than for managers. This hypothesis was based on the evidence that women managers are more likely to have egalitarian beliefs and a greater sense of agency (Bandura, 1986; Gelso & Fassinger, 1992) than are clerical workers because these characteristics and attitudes have been associated with strong career motivations and high career aspirations (Betz & Hackett, 1987; Fassinger, 1990). In addition, clerical workers have been shown to be less likely to feel and behave agentially given their subordinate and devalued roles (Yoder, 1994), whereas managers' occupational roles require them to adopt agentic attributes and behaviors (Kanter, 1977).

In addition to differences in the amount or type of coping used by managers and clerical workers, I also expected that the pattern of relationships between agentic traits and coping responses would vary. Specifically, clerical workers' sense of agency was expected to have a stronger influence than that of managers on the use of engagement and disengagement coping strategies. According to Suls and David (1996), personality characteristics play a lesser role in coping choice when it is clear what behaviors are expected (i.e., "strong" situations) and are increasingly important in determining which coping strategies are enacted in "weak" situations that do not have clear normative standards or behaviors (p. 1002). Given that clerical workers have little organizational power, normative ways of responding to work stress are less apparent. Consequently, agentic characteristics, which have been found to be positively associated with engagement and

negatively associated with disengagement forms of coping (Aspinwall & Taylor, 1992; B. C. Long, 1989; B. C. Long et al., 1992; Terry et al., 1995), would play a greater role in determining coping responses. In contrast, managers' work roles lead to clear expectations about how to respond to work stress because managers are expected to take action, to solve problems, or to meet demands (Kanter, 1977).

Finally, perceptions of the work environment as well as short-term outcomes were also expected to differ. Given the power differential, I hypothesized that clerical workers would experience their work environment as being more demanding (e.g., less work autonomy, clarity, and control) and less supportive and would experience more daily hassles than would managers. Moreover, I predicted that clerical workers would be more depressed and anxious and have more psychosomatic symptoms than would managers. Lennon (1987) found that women who held jobs that were characterized by substantive complexity (i.e., women who worked on their own completing challenging and specific tasks and who felt valuable to others) showed the highest levels of well-being. In addition, Rosenfield (1989) found that women employed in positions of high demand and low power are likely to be depressed because they attribute their inability to have control over their social world to personal failure—a process that diminishes their self-worth and is strongly linked to anxiety and depression. I also expected that clerical workers would report less job and life satisfaction and greater job performance dissatisfaction given their lack of power and status in their work roles and their paucity of coping resources (e.g., education, income).

To summarize, the purpose of this study was to cross-validate a model of stress and coping that was developed for managerial women on a sample of clerical workers and to modify the model if warranted. Although mean differences were hypothesized on the measured variables in the model (e.g., stressor type, control appraisals, disengagement and engagement coping, agentic traits, egalitarian attitudes, work support and demands, daily hassles, and distress and satisfaction measures), the strength and direction of relationships among the constructs in the model were of most interest. I expected the pattern of relationships among the model's constructs to be similar in ways consistent with Lazarus's (1991) theory; however, I also expected that model differences would emerge that reflected the differences in power and status between managers and clerical workers. Specifically, I expected that agency would have a stronger influence on coping strategy use for clerical workers than for managers and would be related to more engagement coping and less disengagement coping. Thus, the equality of the model structure between the clerical workers and managers would not be supported.

Method

Data Set

The data reported here are from two separate data sets. In order to cross-validate the model, data from the original study of managerial women were used, and these included data from the first three assessments of a 2-year longitudinal study. In the

original article (B. C. Long et al., 1992), a conceptual model of stress and coping was tested and developed that was based on data from the first three assessments (Time 1 to Time 3) of 11 assessments completed over 2 years. Status, Sex Role Attitudes, and Agentic Traits were assessed at Time 1; Appraisals, Disengagement and Engagement Coping, Work Environment, and Daily Hassles were assessed at Time 2; and Distress and Satisfaction were assessed at Time 3. These data were used as a base to test the validity of the model on a new set of data obtained from clerical workers, data that have not been reported elsewhere.

Participants and Procedure

The managerial women ($n = 249$) were employed in nontraditional occupations (i.e., fewer than 35% of Canadian employees are women). Their mean age was 38.84 years ($SD = 7.68$, range = 22–66). More detailed descriptions of the managers' characteristics can be found in B. C. Long et al. (1992).

The clerical workers who participated were employed in both large and small organizations in the same large western Canadian city in which the managers were employed. The clerical workers volunteered in response to written requests for participants that I circulated in the media and by networking. The notices were directed to full-time female clerical workers and indicated that the purpose of the study was to investigate how clerical workers experienced workplace stress. No incentives were offered other than a final summary report. Of the 284 respondents who made contact by telephone, 273 met the criteria for inclusion (i.e., they were employed in a clerical position, worked more than 20 hours per week, and did not supervise others). Of the 273 clerical workers who met the criteria and were distributed questionnaires at Time 1, 39 withdrew from the study because of lack of time to participate, 7 no longer met our criteria because of promotion, unemployment, or leave of absence from work (e.g., due to accident or illness), and 4 moved. The overall dropout rate was 18%. Dropout analyses were conducted on the demographic variables measured at Time 1. No differences were found between the retained ($n = 223$) and dropout ($n = 50$) respondents. Chi-square analyses of the demographic variables (marital status, education, number of children, job level, and size of the company) were not significant. Because 9 participants identified a personal rather than a work stressor, their data were omitted from the model testing.

All respondents were self-identified clerical workers. Job classifications included clerks (25%), secretaries–stenographers (23%), administrative assistants (34%), and others (18%). The mean age was 39.77 years ($SD = 9.46$, range = 22–63 years). Fifty-three percent of the clerical workers were married, 22% were single, and 25% were divorced, separated, or widowed. Fifty-three percent were parents. Twenty-four percent had a high school education or less, 42% had special training (e.g., secretarial, clerical), 17% had a college education (2 years postsecondary), and 13% had a university degree. Household incomes ranged from less than \$25,000 (Canadian) per year (23.4%) to over \$61,000 (Canadian) per year (27.5%). The major industries represented were education (31%), service (35%), utilities and public administration (12%), manufacturing and transportation (10%), and other (8%). On average the women had been in the workforce for 17.02 years ($SD = 8.74$, range = 1–42), with their organizations for 5.94 years ($SD = 6.07$, range = 0–29), and in their present positions for 4.63 years ($SD = 5.67$). The majority of women were employed in organizations of over 1,000 employees (47.5%) or fewer than 199 employees (38.1%). Ninety-eight percent of the sample were Caucasian.

Participation was voluntary, but the confidentiality of all individual data was guaranteed. I followed data collection procedures similar to those used in the managers' study (i.e., data were

collected on three occasions approximately 1 month apart). Work background, demographic information, and personality variables were assessed at Time 1. Appraisals, Engagement and Disengagement Coping, Work Environment, Daily Hassles, Distress, and Satisfaction were assessed at Time 2 and Time 3. Consistent with the manager's model, only Distress and Satisfaction variables from Time 3 were included in the model testing. The clerical workers were mailed the assessment packages, which included stamped return envelopes. A research assistant provided participants with instructions for completing the questionnaires at each of the three assessments via telephone contact. Further telephone contact was made if questionnaires were not returned within 10 days.

Measures

The following variables were retained in B. C. Long et al.'s (1992) model after measurement and structural models were tested. More detailed descriptions of the psychometric properties of the measures can be found in B. C. Long et al. (1992). The term *variable* indicates an observed (manifest) variable, and the term *construct* indicates an unobserved (latent) construct throughout this article. Each participant supplied data on age, job level, months in position, total years employed, size and type of organization, marital status, parental status (number of children), household income, and education.

Exogenous constructs. The Status construct contained the variables of marital status, parental status, and household income. Two variables were used to assess the construct of Sex Role Attitudes; these included the short form of the Attitudes Toward Women Scale (Spence & Helmreich, 1978) and two summed items labeled "feminism" (i.e., use of the title Ms. and a self-referent labeling of "feminist"; after Smith & Self, 1981). Daugherty and Dambrot (1986) reported a test-retest reliability of .86 over 3 months for the Attitudes Toward Women Scale.

Agentic personality traits (i.e., an optimistic sense of personal efficacy) were assessed with four variables: (a) the instrumental items from the Bem Sex Role Inventory (Bem, 1981), (b) optimism (Life Orientation Test; Scheier & Carver, 1985), (c) the General Self-Efficacy Scale (Sherer et al., 1982), and (d) the Preventive Coping subscale of the Coping Inventory (Wong & Reker, 1983). Bem (1981) reported test-retest reliabilities from .76 to .94 for the Bem Sex Role Inventory. Scheier and Carver (1985) reported a 4-week test-retest reliability of .79 for the Life Orientation Test, and B. C. Long and Haney (1988) reported a 1-year test-retest reliability of .76 for the General Self-Efficacy Scale.

Endogenous constructs. The Work Environment construct included two work demand variables and one work support variable drawn from the Work Environment Scale (Moos, 1981): (a) a personal-growth/goal-orientation dimension (autonomy and work pressures), (b) a system maintenance and change dimension (clarity and control), and (c) the relationship dimension (involvement, peer cohesion, and supervisor support). One-month test-retest reliabilities for these subscales ranged from .69 to .83.

Coping and Appraisal constructs were assessed with a revised version (B. C. Long, 1990) of the Ways of Coping Checklist (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) that includes items specific to the work environment. Coping was operationalized as two higher order strategies (Engagement Coping, 14 items, and Disengagement Coping, 19 items), rather than as several subscales (cf. Tobin et al., 1989). The Engagement and Disengagement Coping scales were defined by factor analysis (B. C. Long et al., 1992). The directions request that the respondent focus on the primary occupational stressor that occurred during the previous month and respond to each coping strategy according to the degree to which it was used to deal with the stressor.

Respondents were also asked for their appraisals of the stressor and to briefly describe the stressor. Appraisals included four single-item variables that were selected from items reported by Folkman and Lazarus (1980) and Parkes (1986) to be relevant to the work setting: (a) losing respect for someone else, (b) not achieving an important goal at work, (c) how upsetting the stress episode was, and (d) how much control the respondent felt she had in dealing with the stressor.

Daily Hassles, or sources of repetitive personal frustration, were assessed with the Hassles Scale (Kanner, Coyne, Schaefer, & Lazarus, 1981); however, 23 work- and health-related items were not scored because they were redundant with items on other scales. Test-retest reliability (6 months) has been reported as .79 for frequency and .48 for intensity (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982).

The Distress construct included three variables: the Depression, Anxiety, and Somatic Symptom subscales from the Symptom Checklist-90—Revised (SCL-90-R; Derogatis, 1977). Derogatis and Melisaratos (1983) reported test-retest reliabilities over 2 weeks of .68, .84, and .79 for the Somatic Symptom, Depression, and Anxiety subscales, respectively. The Satisfaction construct included four variables. The first scale indicates how much respondents enjoyed work during the past 2 weeks (Quinn & Staines, 1979), and the second scale (Hoppock Job Satisfaction Scale) measures the respondents' satisfaction with their present jobs (McNichols, Stahl, & Manley, 1978). Satisfaction with lifestyle and personal life was assessed on an 8-item scale adopted from the Life Satisfaction Scale (Warr, Cook, & Wall, 1979), and this variable loaded on both the Distress and Satisfaction constructs. Work performance dissatisfaction (Davidson & Cooper, 1984) was a measure of an individual's perceived ability to carry out the requirements of specific work tasks.

Work Stressors

Although the work stressor variable did not load on the managers' model (B. C. Long et al., 1992), I examined the clerical workers' stress episodes in order to compare them with those of the managers. Two independent raters working separately categorized stressor episodes into predetermined categories on the basis of content. Agreement between the two raters was 81%. When the two raters did not agree, stressors were reexamined jointly and a consensus decision was reached. The types of stressors identified for clerical workers were conflict with supervisor (28%), work overload (22%), conflict with coworker (20%), lack of personal gratification (9%), threat of job change (9%), feelings of inadequacy (8%), and an unhealthy physical environment (4%). The categories were collapsed into interpersonal conflicts (48%) and other stressors (52%) because of the importance accorded interpersonal stressors in the literature (e.g., Schwartz & Stone, 1993; Repetti, 1993) and to facilitate comparison with the managers' stressors.

Response Set

Because measures of Sex Role Attitudes may be susceptible to systematic distortion in the direction of norms of sexual equality, the Repression-Sensitization Scale—Short Form (RS; D. Byrne, 1964), an index of cognitive response style, was used to demonstrate discriminant validity. The RS has been recommended as the best measure of self-deception (defensiveness) for use in self-report studies (Linden, Paulhus, & Dobson, 1986). The correlations for clerical workers between the RS and the Attitudes Toward Women Scale and the feminism measure ($r_s = .11$, and $.09$,

Table 1
Means, Standard Deviations, and Reliabilities of Observed Variables in the Clerical Workers' and Managers' Models

Observed variable	Range	Clerical workers			Managers		
		<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α
Marital status ^a	—	1.71	0.84	—	1.40	0.52	—
Parental status (no. of children)	0–5	2.05	1.18	—	1.88	1.23	—
Household income ^b	—	3.61	1.33	—	4.53	1.46	—
Attitudes Toward Women Scale (egalitarian)	0–45	38.64	5.17	.78	38.77	4.98	.81
Feminism	0–6	3.49	1.62	.58	3.34	1.70	.66
Instrumentality*	20–140	91.74	14.31	.85	105.31	12.25	.88
Optimism (Life Orientation Test)*	0–32	20.14	4.96	.79	23.38	4.67	.84
General Self-Efficacy Scale*	17–119	87.25	12.65	.81	95.43	12.30	.86
Preventive coping*	0–18	9.90	3.67	.75	11.06	3.27	.73
Personal growth dimension (work demands)*	0–18	9.99	3.67	.70	8.88	3.03	.62
System maintenance dimension (work demands)*	0–18	9.31	3.25	.74	8.05	2.96	.80
Relationship dimension (work support)*	0–27	14.86	6.50	.88	20.22	5.39	.87
Loss of respect ^c	1–5	2.64	1.61	—	2.51	1.48	—
Threat to goal attainment ^c	1–5	3.16	1.57	—	3.44	2.51	—
Episode upsetting ^c	1–5	3.49	1.00	—	3.23	0.93	—
Perceived control ^c	1–5	2.41	1.32	—	3.07	1.14	—
Disengagement Coping*	0–57	16.67	9.06	.82	13.43	5.39	.82
Engagement Coping	0–42	18.62	8.06	.83	20.21	7.90	.81
Daily Hassles*	0–282	46.35	33.16	.95	32.43	23.60	.93
Depression*	0–13	11.43	9.14	.86	8.09	7.54	.86
Anxiety*	0–10	5.63	6.43	.87	4.60	5.37	.82
Somatic symptoms*	0–12	7.18	6.91	.84	4.60	5.14	.83
Life Satisfaction Scale*	8–56	37.59	8.01	.79	41.77	6.64	.80
Job Satisfaction Scale* ^c	1–10	6.01	2.22	—	6.80	2.10	—
Hoppock Job Satisfaction Scale*	4–28	17.93	4.75	.87	20.82	3.65	.86
Work performance (dissatisfaction)	1–5	2.24	0.54	.86	2.17	0.62	.90

Note. Clerical workers, $n = 214$; Managers, $n = 249$. High scores indicate higher levels of the characteristic as defined by the labels. Dashes indicate not applicable.

^a1 = married; 2 = not married. ^b1 = < \$15,000; 2 = \$15,000–\$25,000; 3 = \$26,000–\$40,000; 4 = \$41,000–\$60,000; 5 = \$61,000–\$80,000; 6 = \$81,000–\$100,000; 7 = > \$100,000. ^cSingle-item measure.

*Clerical workers different from managers at $p < .001$.

respectively) were similar to those found for managers ($r_s = .00$ and $.12$, respectively; B. C. Long et al., 1992) and indicate that a systematic response bias with regard to self-deception does not exist in these data.

Results

Table 1 presents the means, standard deviations, ranges, and Cronbach's alphas of the measured variables in the manager and clerical worker samples. The correlation matrix of all variables used for testing the clerical workers' model is presented in Table 2 (although the covariance matrix was analyzed, the correlations are presented here for interpretation purposes).

Differences Between Clerical Workers and Managers

Chi-square analyses and analyses of variance were used to test group differences on demographic and work-related variables. The clerical workers and managers did not differ

significantly on mean age ($M_s = 39.77$ and 38.84 , respectively), $F(1, 474) = 1.63$, $p > .20$, or months in position ($M_s = 55.65$ and 46.36 , respectively), $F(1, 476) = 3.26$, $p > .07$, but managers had been with their company for more years ($M_s = 8.28$ vs. 5.93), $F(1, 474) = 17.79$, $p < .0001$. Chi-square analyses were not significant for marital status by group, $\chi^2(2, N = 476) = 1.18$, ns , or number of children, $\chi^2(4, N = 476) = 6.21$, ns , but they were significant for education, $\chi^2(6, N = 476) = 25.52$, $p < .0003$, income, $\chi^2(6, N = 475) = 66.21$, $p < .0001$, and size of the company, $\chi^2(3, N = 476) = 9.87$, $p < .02$. In summary, female managers compared with female clerical workers were with their company for more years, had higher household incomes, were more likely to have a college or university education, worked in smaller organizations (< 199 employees), and reported a greater percentage of interpersonal stressors (60% vs. 48%, respectively) than other stressors, $\chi^2(1, N = 463) = 6.81$, $p < .05$.

Multivariate analysis of variance was conducted to deter-

Table 2
Zero-Order Correlations Among All Variables in the Clerical Workers' Model

Variable	PAR	MAR	INC	AWS	FEM	INS	LOT	GSE	PRC	REL	PGD	SMD	HAS	RES	GOA	CON	UPS	DEN	ENG	DEP	ANX	SOM	LSA	JSA	HJS	WPE
PAR	—																									
MAR	01	—																								
INC	18	-55	—																							
AWS	-09	06	02	—																						
FEM	08	16	-13	42	—																					
INS	-15	13	-04	22	00	—																				
LOT	18	04	12	-17	-20	19	—																			
GSE	13	-07	17	01	-21	37	38	—																		
PRC	12	06	04	-09	-14	12	31	22	—																	
REL	02	-08	08	-05	-11	-06	17	05	05	—																
PGD	05	02	-07	00	-02	05	02	03	13	-58	—															
SMD	-12	01	-08	10	09	07	-20	-14	-04	-64	61	—														
HAS	-12	08	-14	00	-02	01	-18	-16	-08	-13	09	28	—													
RES	-03	10	-09	07	-04	04	05	02	-02	-13	19	22	28	—												
GOA	-12	03	-05	-05	-08	14	07	02	-01	-12	08	14	03	18	—											
CON	-01	-11	15	00	-01	-02	10	-07	03	23	-15	-23	00	-16	-07	—										
UPS	-12	00	-07	02	-09	06	-12	13	-05	-27	19	27	15	30	18	-32	—									
DEN	-23	02	-10	13	12	-07	-25	-21	-09	-25	16	36	34	26	21	-28	43	—								
ENG	08	01	12	-09	-11	11	22	22	47	16	03	-01	14	12	-03	10	00	11	—							
DEP	-12	11	-15	13	09	08	-25	-06	-15	-19	14	31	40	16	00	-11	21	37	12	—						
ANX	-09	13	-15	11	04	02	-21	-12	-10	-16	14	28	45	22	-07	-06	22	32	09	79	—					
SOM	-05	-02	-01	00	-12	-02	-13	-03	-12	-09	07	21	28	14	-02	-01	16	20	09	66	66	—				
LSA	00	-17	23	-19	-22	01	29	12	22	21	-12	-24	-41	-12	-08	10	01	-23	03	-47	-35	-36	—			
JSA	02	-05	09	-06	-13	-12	09	01	06	34	-26	-35	-20	-14	-01	19	-18	-17	04	-21	-14	-09	26	—		
HJS	14	-05	14	-18	-18	-13	18	05	00	46	-34	-42	-19	-15	-01	22	-23	-24	08	-29	-22	-14	30	70	—	
WPE	-09	08	-08	20	21	-13	-16	-29	-20	-20	22	25	30	33	00	-08	14	39	-09	18	23	20	-30	-14	-16	—

Note. Decimals have been omitted. $N = 214$ clerical workers. PAR = parental status (no. of children); MAR = marital status (1 = married; 2 = not married); INC = household income; AWS = Attitudes Toward Women Scale (egalitarian); FEM = feminism; INS = instrumentality; LOT = Life Orientation Test (optimism); GSE = General Self-Efficacy Scale; PRC = preventive coping; REL = relationship dimension (work support); PGD = personal growth dimension (work demands); SMD = system maintenance dimension (work demands); HAS = Daily Hassles; RES = loss of respect; GOA = threat to goal attainment; CON = perceived control; UPS = upsetting stressor episode; DEN = Disengagement Coping; ENG = Engagement Coping; DEP = depression; ANX = anxiety; SOM = somatic symptoms; LSA = Life Satisfaction Scale; JSA = Job Satisfaction Scale; HJS = Hoppock Job Satisfaction Scale; WPE = work performance dissatisfaction.

mine mean differences between the clerical workers and managerial women on the manifest variables in the model. Following a significant overall group effect, $F(24, 437) = 13.45$, $p < .001$, probability values less than .001 were accepted as significant at the univariate level (see Table 1). As expected, the managers were more agentic (i.e., instrumental, optimistic, efficacious, and used more preventive coping resources) than the clerical workers. Also as predicted, clerical workers appraised the work stressor as less under their control, used more disengagement coping, were more anxious and depressed, and had greater somatic symptoms than the managers. On the other hand, managers had more supportive relationships on the job and fewer work demands and daily hassles than the clerical workers. Finally, although clerical workers had lower job and life satisfaction than managers, unexpectedly, they did not differ on work performance dissatisfaction, egalitarian and feminist attitudes, or engagement coping.

Structural Equation Modeling: General Procedures

I conducted data analyses using complete data for all 214 clerical workers and 249 managers. The computer program PRELIS was used for prescreening, for calculating data transformations, and for generating the covariance matrix that was subsequently analyzed by LISREL8 (Jöreskog & Sörbom, 1993). I used a maximum likelihood estimation procedure to test the models because the data were a mix of continuous and ordinal measures and neither the weighted least squares procedure nor polychoric or polyserial correlations were appropriate. Because skewness and kurtosis were large (> 2.0) on the SCL-90-R Anxiety subscale, I applied square root transformations that reduced both kurtosis and skewness to less than 1. The overall data appeared not to deviate from an assumed distribution of multivariate normal.

One loading on each latent variable was set to a value of 1.0 to establish a common metric (J. S. Long, 1983). For the clerical model, I followed Jöreskog and Sörbom's (1989, p. 185) recommendation, and rather than assuming that the single-indicator constructs were measured without error, I used the scale reliabilities from B. C. Long et al. (1992) to specify the error variances for the three single manifest variables (i.e., Disengagement Coping, Engagement Coping, and Daily Hassles). Bollen and Long (1993) recommended choosing from different families of overall fit statistics to assess fit from different perspectives. Thus, I evaluated the overall fit of the models using a number of indices: the χ^2/df ratio (Q), the LISREL goodness-of-fit index (GFI), the parsimony goodness-of-fit index (PGFI), the root mean square residual (RMSR), and the root mean square error of approximation (RMSEA). Q values of less than 2.0 were interpreted as suggesting a plausible model (Carmines & McIver, 1981). The LISREL GFI is influenced by sample size, and thus it is difficult to set evaluation standards for its interpretation; however, values above .90 are generally considered good and values greater than .85, acceptable. Because the PGFI adjusts for df it was also reported. Browne and Cudeck (1993) suggested that RMSEA yields an estimate of the average discrepancy per degree of

freedom independent of sample size. Thus, an RMSEA of zero would indicate a perfect fit, with a value under .05 indicating a close fit, although Browne and Cudeck suggested that values around .08 indicate a reasonable and acceptable approximation. Q , GFI, PGFI, RMSR, and RMSEA all provide some index of the departure of the model structure from the observed matrix.

Multiple-Group Analyses

In order to determine whether the clerical workers' data fit the model developed for managers, I followed a multiple-group analytic approach (Jöreskog & Sörbom, 1989) that compared the equality of the model structure between clerical workers and managers (i.e., the structure and path coefficients). An inadequate fit would provide justification for modifying the clerical workers' model. In multiple-group analyses, all parameters in both samples (managers and clerical workers) are estimated; therefore, chi-square and degrees of freedom are the sum of two values, each obtained from an independent analysis. Goodness-of-fit measures are somewhere between those for the two independent analyses.

Prior to conducting the multiple-group tests, I used confirmatory factor analysis to test the measurement model that had been developed for managers with the clerical worker data. The results indicated that all parameter estimates for the latent constructs in the measurement model were significant at the .01 level and provided an adequate fit to the data ($\chi^2 = 551.48$, $df = 278$, $Q = 1.98$; GFI = .84; RMSR = .082). The next step determined whether the model was invariant across samples (i.e., I tested the equality of the covariances between the two groups). The results of the analysis (see Table 3, Multiple-Group Model 1) showed an acceptable fit ($Q = 1.83$; GFI = .85; RMSR = .079), indicating that the model derived from managers' data is somewhat invariant when applied to clerical data. However, global tests of invariance have been found to lead to contradictory findings (B. M. Bryne, 1989), and it has been recommended that subsequent tests should be conducted to test the invariance of particular parameters (Rock, Werts, & Flaughner, 1978). Therefore, I conducted further multiple-group tests but in a sequence that reflected the size of the model and the nature of the data set.

For Step 2, I tested only the equality of the correlations among the exogenous latent constructs for the two samples because Time 1 exogenous constructs predicted Time 2 and Time 3 endogenous constructs. Although this analysis yielded a poorer fit of the model when further constraints were introduced (see Table 3, Multiple-Group Model 2), the difference in chi-square values between the results of this model and those of the previous one was 10.10 (6 df , $p > .10$) and indicated an acceptable model fit. Thus, the correlations among the exogenous latent constructs for the clerical sample were not significantly different from those for the manager sample. Next, adding to the constraints already included, I tested whether the paths from the exogenous constructs to the endogenous constructs were equal. The results indicated a poorer fitting model (see Table 3, Multiple-Group Model 3). The difference in chi-square

Table 3

Comparison of the Fit Indices for the Multiple-Group Analyses of Clerical Workers' and Managers' Causal Models

Model	Overall model fit	Q	GFI	PGFI	RMSEA	RMSR
Multiple-Group 1	$\chi^2(556, N = 463) = 1,019.77$	1.83	.85	1.346	.042	.079
Multiple-Group 2	$\chi^2(562, N = 463) = 1,029.87$ $\Delta\chi^2 = 10.10, \Delta df = 6, p > .10$	1.84	.85	1.358	.042	.080
Multiple-Group 3	$\chi^2(569, N = 463) = 1,049.35$ $\Delta\chi^2 = 19.48, \Delta df = 7, p < .01$	1.84	.84	1.366	.043	.082
Multiple-Group 4	$\chi^2(579, N = 463) = 1,149.02$ $\Delta\chi^2 = 99.67, \Delta df = 10, p < .01$	1.99	.83	1.370	.046	.087

Note. Multiple-Group Model 1 tests equality of covariances between the two groups; Multiple-Group Model 2 tests equality of correlations among the exogenous latent constructs (6 *df*); Multiple-Group Model 3, in addition to Model 2 constraints, tests whether the exogenous paths are equal (13 *df*); Multiple-Group Model 4, in addition to Model 3 constraints, tests whether endogenous paths are equal (23 *df*). $Q = \chi^2/df$; GFI = goodness-of-fit index; PGFI = parsimony goodness-of-fit index; RMSEA = root mean square error of approximation; RMSR = root mean square residual.

values between the results of this model and those of the previous one was 19.48 (7 *df*, $p < .01$), indicating a significantly worse model fit. Thus, the paths from the exogenous constructs differed between the two samples. Finally, in addition to the procedures for Steps 2 and 3, I tested whether the paths among the endogenous constructs were equal between the two samples. The difference in chi-square values between the results of this model and those of the previous one was 99.67 (10 *df*, $p < .01$), indicating a significantly worse model fit (see Table 3, Multiple-Group Model 4). Thus, the paths among the endogenous constructs also differed between the two samples. On the basis of these results, I concluded that the hypothesis of equality of parameter estimates among latent variables for the two samples was not tenable.

Model Modifications

Because the multiple-group analyses revealed a poor fit for the test of structural invariance between the two groups, I undertook a series of model modifications in order to develop an acceptable model for the clerical workers' data. The results of the LISREL analysis are presented graphically in Figure 1, which includes standardized estimates of parameters in the measurement and structural models. For comparison, the path coefficients for the managers' model are included in parentheses. Modifications to the model were considered on the basis of (a) modification indices and *t* values from LISREL output and (b) the correlations between variables. Also, all modifications were made within the constraints of the theoretical basis of the original model. As a first step, minor changes were made from an initial examination of the model parameters ($\chi^2 = 510.44$, *df* = 278, $Q = 1.84$; GFI = .85; RMSR = .069). Two correlated error paths—instrumental traits and income, and feminism and marital status—were deleted (all *ts* < 1, *ns*). Although the manifest variable of feminism loaded on both Agentic Traits and Sex Role Attitudes in the managers' model, feminism did not load significantly on Agentic Traits in this model; therefore that path was removed from the model. Next, three

paths that were not significant were also deleted, one at a time (Agentic Traits to Satisfaction, Daily Hassles to Satisfaction, and Sex Role Attitudes to Appraisals). Their coefficients were small (all *ts* < 1.0) and nonsignificant. To summarize, the minor changes to the model included the deletion of two correlated error terms, one factor path, and three nonsignificant paths between constructs and resulted in virtually no difference in the goodness-of-fit measures ($\chi^2 = 515.06$, *df* = 284, $Q = 1.81$; GFI = .85; RMSR = .079).

The next step entailed an examination of large (> 10) modification indices and led to additional modifications. Modifications were restricted to those that were consistent with theory and empirical studies and were accepted only if the resultant change in the chi-square was significant ($p < .05$). First, the path from Agentic Traits to Disengagement Coping was freed. The difference in chi-square values between the results of this model and those of the previous one was 13.25 (1 *df*) and indicated a significant ($p < .01$) improvement in the model fit by the addition of this path (coefficient = $-.34$). Second, one other path was freed, from Appraisals to Engagement Coping (coefficient = .51), and resulted in a significant ($p < .01$) improvement in the model (chi-square difference = 10.59, 1 *df*). Both of these paths are conceptually consistent with previous empirical work and Lazarus's (1991) theory of stress and coping. Finally, I tested whether the Appraisals and Work Environment relationship and the Distress and Satisfaction relationship were reciprocal relationships because I had done so with the managers' model. As with the managers' model, the clerical workers' data did not support reciprocal relationships between these constructs (*ts* < 1.19 and 0.70, respectively). Because the fit of this model was significantly better than that of the original model and no modification indices were larger than 10, no further modifications were made to the model. Seventy-two percent of the total variance in the endogenous constructs was accounted for in the model. The fit information for this modified model and the managers' model is presented in Table 4.

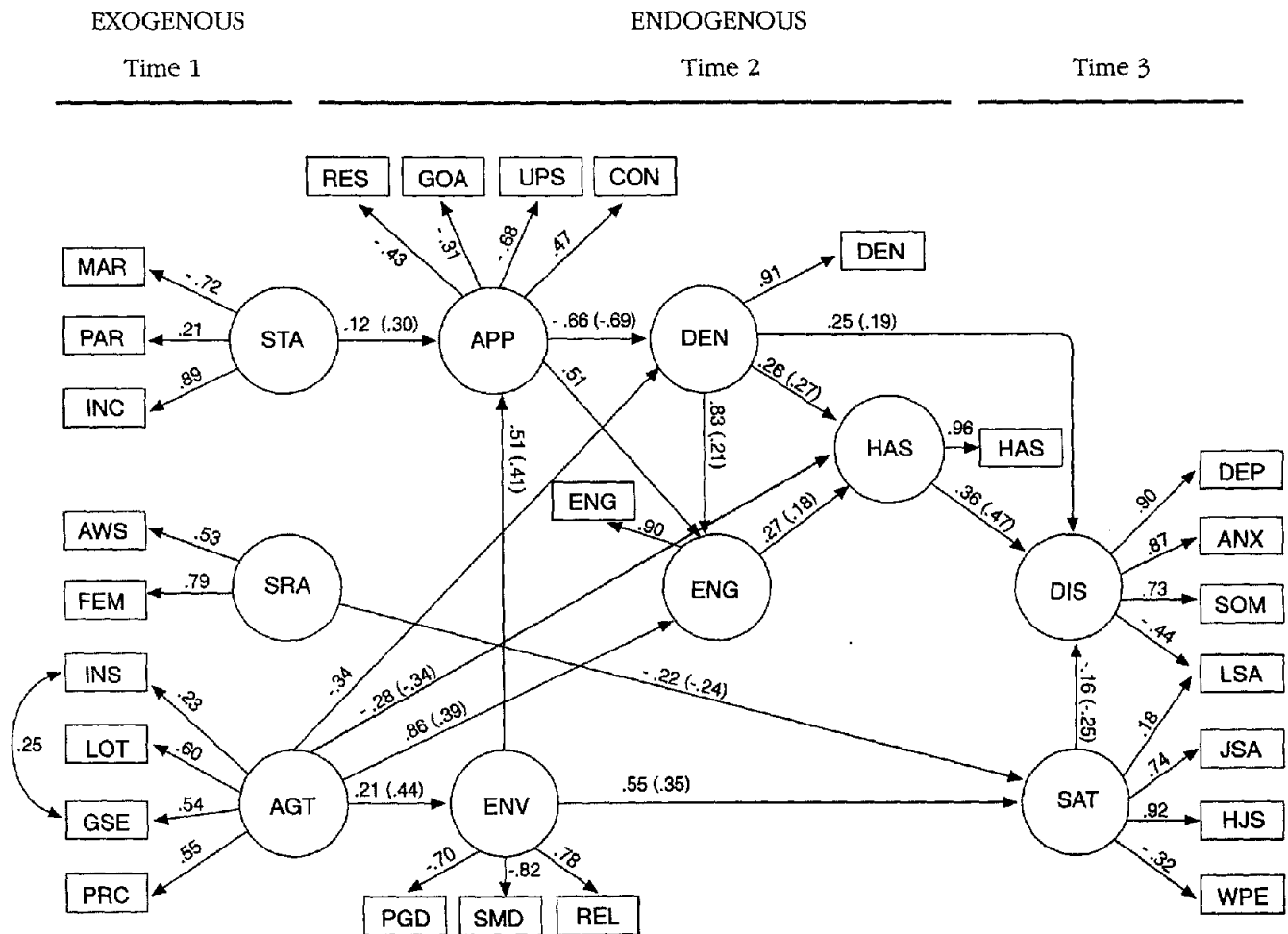


Figure 1. Final modified model of clerical workers' stress, coping, and well-being. Significant paths and standardized LISREL estimates are indicated for Times 1, 2, and 3; estimates in parentheses are from the original managers' model. (All paths are significant at $p < .05$.) STA = Status; MAR = marital status; PAR = parental status; INC = income; SRA = Sex Role Attitudes; AWS = Attitudes Toward Women Scale; FEM = feminism; AGT = Agentic Traits; INS = instrumental; LOT = Life Orientation Test (optimism); GSE = General Self-Efficacy Scale; PRC = preventive coping; ENV = Work Environment; PGD = personal growth dimension (work demands); SMD = system maintenance dimension (work demands); REL = relationship dimension (work support); APP = Appraisals; RES = loss of respect; GOA = threat to goal attainment; UPS = episode upsetting; CON = perceived control; DEN = Disengagement Coping; ENG = Engagement Coping; HAS = Daily Hassles; DIS = Distress; DEP = depression; ANX = anxiety; SOM = somatic symptoms; LSA = Life Satisfaction Scale; SAT = Satisfaction; JSA = Job Satisfaction Scale; HJS = Hoppock Job Satisfaction Scale; WPE = work performance (dissatisfaction). Derived from the model of B. C. Long, Kahn, and Schutz (1992).

Relationships Among Variables

Figure 1 shows the standardized path coefficients for all paths in the final model (all path coefficients are significant at the .05 level). The path coefficients from the managers' model are shown in parentheses. Three parameter estimates that were significant in the manager's model (paths that linked Sex Role Attitudes with Appraisals, Agentic Traits with Satisfaction, and Daily Hassles with Satisfaction) are not included in the figure because these paths were removed from the clerical workers' model because they were not significant. In the manager's model, the path coefficient linking Sex Role Attitudes and Appraisals indicated a weak relationship ($b = -.16$), as did the parameter estimate for

the path linking Daily Hassles and Satisfaction ($b = -.16$). However, the path coefficient linking Agentic Traits and Satisfaction in the manager's model indicated a moderate relationship ($b = .39$, $p < .01$).

As can be seen from Figure 1, the direction of the path coefficients is similar in both models; however, some path coefficients differ in strength of association. The hypothesized differences between clerical workers and managers in the strength of the association (i.e., the structural path coefficients) between the constructs of Agentic Traits and Engagement Coping and Disengagement Coping were found. Examination of the modified model revealed that the parameter estimate for the path linking Agentic Traits and Disengagement Coping was $-.34$ ($p < .01$), and that for the path

Table 4
*Comparison of Overall Model Fit and Structural Relations
 Indices for the Modified Clerical Workers' and
 Managers' Causal Models*

Index	Modified clerical workers' model	Managers' model
Overall model fit		
χ^2	475.25 ^a	509.33 ^b
χ^2/df	1.69	1.83
LISREL goodness of fit	.86	.87
Root mean square residual	.076	.078
Root mean square error of approximation	.057	.058
Parsimony goodness of fit	.69	.69
Structural relations		
Coefficient of determination (exogenous variables)	.97	.99
Coefficient of determination (equations)	.72	.56
Squared multiple correlation		
Appraisal	.27	.29
Work Environment	.04	.19
Disengagement Coping	.60	.48
Engagement Coping	.61	.17
Daily Hassles	.21	.22
Satisfaction	.37	.50
Distress	.32	.49

^a $df = 281, N = 214$. ^b $df = 278, N = 249$.

linking Agentic Traits and Engagement Coping was .86 ($p < .01$). These parameter estimates were in the direction expected and were stronger than the respective path coefficients (ns and .35, respectively) in the initial managers' model. Clerical workers who used less Disengagement Coping and more Engagement Coping tended to have stronger Agentic Traits, whereas for managers, Agentic Traits were only moderately associated with greater Engagement Coping and were not associated with Disengagement Coping. Additional differences between the models were revealed. Disengagement Coping had a strong positive effect on Engagement Coping ($b = .83, p < .01$); that is, clerical workers who used more Disengagement Coping were also more likely to use more Engagement Coping; and path coefficients linked positive stress Appraisals (greater control, less upsetting, and less at stake) with greater Engagement Coping ($b = .51, p < .01$).

Generally, the relationships among the latent constructs in the modified clerical workers' model were consistent with the results of the managers' model. For example, the data revealed that for clerical workers, Disengagement Coping had both direct and indirect effects on Distress; and Engagement Coping had an indirect effect on Distress, through Daily Hassles. Clerical workers with high levels of Distress tended to rely on Disengagement Coping and experienced greater Daily Hassles, which in turn were influenced by greater coping and less agency. The path coefficients linked less egalitarian Sex Role Attitudes and a more positive Work Environment (supportive relationships), which in turn pre-

dicted less Distress. Finally, the path coefficient linking Status and Appraisals (.12, $p < .05$) revealed a weak relationship for clerical workers who held traditional roles (i.e., married with children, greater incomes) with more positive Appraisals of the stressor event.

Discussion

The present study focused on institutionalized social roles and the experience of work stress by cross-validating a causal model developed on managerial women with an independent sample of clerical workers. A major finding concerned the differences between managers and clerical workers on the components of the stress model (e.g., coping resources, mediating influences, and outcomes), differences that were consistent with their respective work contexts. The second major contribution was the differential influence agentic characteristics had on coping responses, and the third major finding provided support for the role of appraisals and coping that is consistent with Lazarus's (1991) theoretical framework. These results highlight the impact that power differentials inherent in organizational hierarchies have on the complex interplay of variables in the stress and coping process. Moreover, by clarifying the circumstances in which agentic characteristics play a larger role in the coping process, the pattern of findings leads to the integration of previous research on coping with research supporting the influence of stable individual differences.

The results of a conservative analysis of mean scores on the components of the stress model supported the expected differences between female managers and clerical workers. The differences were consistent with the structural and social forces associated with their respective institutionalized social roles. For example, managers had more work support and fewer demands (e.g., greater work autonomy, control, and clarity), greater appraised control over the stressor, fewer hassles, less depression, anxiety, and somatic symptoms, and greater life and work satisfaction. Although managers also used significantly less disengagement coping than clerical workers in dealing with a specific work stressor, the two groups did not differ in their use of engagement coping. However, an examination of the use of engagement coping relative to that of disengagement coping revealed that managers used proportionally more engagement coping than clerical workers (ratios of 2.13 and 1.50, respectively). These results are consistent with the subordinate role of clerical workers (Kanter, 1977; Mainiero, 1986). In contrast, managers' organizational power is reflected in their perceived control over the stressor (cf. Carver, Scheier, & Weintraub, 1989; Terry, 1994; Terry et al., 1995). These findings illustrate the role that the distribution of power and resources in the workplace plays in the experience of workplace stress, and they emphasize the importance of the relationship between the person and the person's social context (Lennon, 1989; Pearlin, 1989).

An alternative explanation for these findings needs to be discussed. Differences in control appraisals, coping responses, and outcomes could be attributable to the fact that managers and clerical workers were coping with different

types of stressors. Consistent with managers' supervisory role, managers were predominantly coping with stressors described as interpersonal in nature (60%), whereas clerical workers reported fewer interpersonal stressors (48%; cf. Dewe, 1993). However, previous findings indicate that interpersonal stressors usually engender depression, negative mood (Repetti, 1993; Snapp, 1992), or symptoms of ill health (Israel, House, Schurman, Heaney, & Mero, 1989) when contrasted with other types of stressors. Yet, compared with clerical workers, managers reported fewer negative outcomes, results which suggest that type of stressor does not entirely explain group differences in appraisals, coping responses, or outcomes.¹

Although only two of the measures that were expected to differ by group did not, these results warrant some discussion. First, egalitarian attitudes did not differentiate between clerical workers and managers. Two explanations for these discrepant results are apparent. Although egalitarian beliefs have been associated with nontraditional career choices (Betz & Fitzgerald, 1987), there is evidence that women tend to select clerical jobs because of availability, convenience, economic need, or limited options (Meleis, Norbeck, Laffrey, Solomon, & Miller, 1989). This trend is reflected in the fact that 13% of the participants in the present study held university degrees and may have been overqualified for their jobs. Thus, egalitarian attitudes may not discriminate between female clerical workers and managers. Alternatively, there is some evidence that the Attitudes Toward Women Scale (Spence & Helmreich, 1978) may no longer be a sensitive measure of sex role attitudes because of cultural changes in attitudes toward women's roles (Spence & Hahn, 1997; Twenge, 1997). Second, managers and clerical workers did not differ on work performance satisfaction despite clerical workers' low status and lack of organizational power. Although there is no clear explanation for these results, they may reflect a society in which paid work is central to self-definition and performance of work tasks is thus a source of satisfaction regardless of organizational level.

Two conclusions were drawn from the results of the multiple-group analyses and subsequent modifications to the model. First, the pattern of relationships was consistent with Lazarus's (1991) theoretical framework. Second, the results supported the hypothesis that clerical workers' agentic characteristics would have a stronger influence on the way they coped with work-related stress, compared with managers. Path coefficients indicated a moderate negative relationship between Agentic Traits and Disengagement Coping and a strong positive relationship with Engagement Coping. In contrast, there was no relationship between Agentic Traits and Disengagement Coping for managers and only a moderate positive one for Engagement Coping. This pattern of results is consistent with Suls and David's (1996) premise that a lack of clear behavioral norms enhances the influence of personality disposition on choice of coping, and it assumes that clerical workers' lack of organizational power results in ambiguity regarding what responses to make to work stress. This theory may also explain the differential effects of Appraisals on coping because clerical workers'

Appraisals predicted Engagement Coping, whereas there was no relationship between Appraisals and Engagement Coping in the managers' model. Although these results are consistent with expectations, more direct tests of this hypothesis are needed.

An important consideration is the amount of confidence we have in the modified model, because the hypothesized pattern of relationships was supported across two different samples. The results were replicated with data collected from an independent sample; thus there is increased confidence in external validity. Although the samples differed in terms of their education, income, years with their companies, and size of their organizations, they were similar in some important ways. The managerial sample was composed of more highly educated women with supervisory responsibilities, who had been with their company an average of 8 years and who were more likely to work for an organization with fewer than 200 employees. In contrast, the clerical workers generally had lower educational levels and incomes and no supervisor responsibilities, had been with their companies for only 6 years, and were likely to work in large organizations (> 1,000 employees). However, the women in both samples were comparatively middle aged (mean age = 39 years), had been in their positions for 4–5 years, and were equally likely to be married or to have children. Future research should investigate whether the model is supported in samples with greater ethnic diversity and in less hierarchically organized occupations.

In summary, the results of the present study add to the body of research on occupational stress that is concerned with the development of models that depict the complex process of stress, coping, and adjustment. To my knowledge, no other research project has systematically tested a causal model of stress and coping by first determining the model's stability, reliability, and replicability and then cross-validating it on an independent sample. Consequently, this study contributes to a better understanding of the processes that influence the experience of workplace stress and coping by employed women. Moreover, it is clear that institutionalized social roles, the nature of work, and gender expectations need to be included in an examination of workplace stress and coping, particularly differences in power, resources, and status.

The present study has several strengths; however, there are also a number of limitations that should be taken into consideration in the interpretation of the results. First, 98% of the sample were White female clerical workers or managers who resided in a large metropolitan community. Consequently, there is a need to replicate these findings with other ethnic or racial groups before the results can be safely generalized to those populations. Moreover, the sample may have consisted of volunteers who had a special interest in stress and coping; thus the magnitude of the relationships in

¹ Additional analyses revealed that the effects of the coping responses did not vary as a function of the type of situation. Entry of Stressor Type \times Coping product terms into the final step of preliminary regression analyses failed to account for a significant increment of variance in Distress or Satisfaction outcome variables.

the model may differ for another sample. Although these data were assessed over time, the study relied on self-report data, and future research should assess behavioral or external outcomes in order to reduce the problem of method effects. Caution is warranted in inferring causal relations from these data because the results only fail to disconfirm the model, and alternative models may be plausible. The operational definitions of appraisals and coping responses are another limitation of the present study. Because stress appraisals were measured on single-item scales that were not specifically developed for work stress, future research should develop means of assessing specific appraisals relevant to women's ways of coping with work stress that are theoretically based and psychometrically sound (cf. Portello, 1996). Moreover, measures of coping function such as Engagement Coping and Disengagement Coping may not yield as much information about the process of coping with work stress as may more specific subscales (see Terry et al., 1995); however, these broader coping functions have the potential to contribute to the organizational literature on theories of work engagement (Kahn, 1990, 1992). Moreover, O'Brien and DeLongis (1996) recently provided evidence for the importance of a relationship-focused coping function. Therefore, future studies should consider including additional coping strategies such as relationship coping strategies, as well as more collective ways of coping with work stress (Banyard & Graham-Bermann, 1993). Although this study did not control for negative affect, the results are unlikely to be confounded because a single stressful encounter was the focus rather than generalized perceptions (see Portello, 1996; Terry et al., 1995).

Implications for counseling psychologists are apparent in several areas. The differential effects of the personality disposition of agency on coping responses for female clerical workers and managers highlight the importance of organizational and social roles in understanding the complex interplay of variables in the stress and coping process. Thus, counselors need to balance individually oriented explanations for workplace stress and coping with organizational and structural perspectives. Stress management programs that focus entirely on the modification of personal coping strategies or the enhancement of agentic characteristics fail to acknowledge the powerful influence of social roles. To offset the individualized focus of most stress management interventions, counselors can facilitate an exploration of workplace culture that is reflected in institutionalized social roles. Women's recognition of the influence of the work context in determining their coping resources, stress appraisals, coping responses, and well-being may lead to further exploration of career choices. This is not to say that an individualized focus such as the enhancement of agency should not be attempted, or that more effective coping strategies should not be taught. Indeed, counselors can consider at least two types of experiences for their clients that contribute to greater agency—the establishment of secure and harmonious relationships and opportunities for success in accomplishing tasks that are salient to the individual (Kaplan, 1996), processes that counselors can encourage. Finally, because appraisals of specific work stressors and subsequent coping efforts are central to the

experience of psychosomatic health and daily hassles for a large segment of the female workforce, counselors need to consider that the complexity of the stress and coping process and its effect on adjustment are important career issues (Marshall, 1989, 1993).

In conclusion, the results of this study suggest that the role personality disposition plays in influencing coping responses to work-related stress depends on organizational power and status. Thus, the concept of agency may be particularly useful in predicting the work adjustment of those workers who have little power in the workplace. However, an examination of the influence of other personality traits on coping responses is also warranted (Watson & Hubbard, 1996). These prospective findings lend considerable support to a general model of stress and coping in which coping resources (agentic characteristics) are postulated to influence coping responses, which in turn affect psychological health and satisfaction, both directly and indirectly. These results add to a growing body of evidence demonstrating the significance of both coping resources and coping responses to the psychological health and satisfaction of female employees. The results also emphasize the need for researchers to consider issues of power and status, because stress is not just about the individual woman and her coping pattern, but reflects power relationships between employee and employer that constrain the availability of coping resources.

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