

# On the Meaning of Maslach's Three Dimensions of Burnout

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The dimensionality of Maslach's (1982) 3 aspects of job burnout—emotional exhaustion, depersonalization, and personal accomplishment—was examined among a sample of supervisors and managers in the human services. A series of confirmatory factor analyses supported the 3-factor model, with the first 2 aspects highly correlated. The 3 aspects were found to be differentially related to other variables reflecting aspects of strain, stress coping, and self-efficacy in predictable and meaningful ways. Implications for better understanding the burnout process are discussed.

Considerable progress has been made recently in understanding the nature of burnout. Although not universally accepted, Maslach's (1982) definition of burnout as a syndrome of emotional exhaustion, depersonalization of others, and a feeling of reduced personal accomplishment has emerged as the most widely cited. Consistent with this general acceptance, the most widely used measure of the construct has been the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981). The MBI has evidenced relatively high internal consistency and test-retest reliability, and results concerning its concurrent and predictive validity are promising (Green & Walkey, 1988; Maslach & Jackson, 1986). However, continued progress in understanding burnout may be hampered by questions regarding the dimensionality and construct validity of the MBI (Evans & Fischer, 1989; Meier, 1984). The purpose of this study was to compare Maslach's three-factor model with other factor models of the MBI and to examine whether the three dimensions are related to variables drawn from related areas of research on stress coping and work adjustment.

## Dimensionality of Burnout

Given the moderate to high correlations often found between the MBI's operationalization of exhaustion and depersonalization (see Maslach & Jackson, 1986), it is not clear whether a two-factor solution would yield a more parsimonious fit than

the putative three-factor model. Since the early 1980s, a number of validation studies have supported the three-factor model (Belcastro, Gold, & Hays, 1983; Fimian & Blanton, 1987; Golembiewski, Munzenrider, & Stevenson, 1986; Green & Walkey, 1988; Iwanicki & Schwab, 1981; Maslach & Jackson, 1981; Pierce & Molloy, 1989). In other studies, however, exhaustion and depersonalization have loaded on a single factor (Brookings, Bolton, Brown, & McEvoy, 1985; Dignam, Barrera, & West, 1986).

Unfortunately, exploratory factor analysis was used in most of the validation studies, so that it was not possible to test *a priori* whether the three-factor model is superior to two- and one-factor models. Only Evans and Fischer (1989) and Gold, Bachelor, and Michael (1989) used confirmatory factor analysis, in which the pattern of loadings is specified in advance. Evans and Fischer found that the three-factor model was superior to the one- and two-factor models, and Gold et al. found that the three-factor model was superior to the one-factor model (the relative fit of the two-factor model was not assessed). In the present study, we built on this preliminary work by contrasting Maslach's three-factor model of burnout with one- and two-factor models.

## Meaning of the Burnout Dimensions

Some researchers have questioned the construct validity of burnout, arguing that it is synonymous with depression (cf. Meier, 1984), strain (Perlman & Hartman, 1982), disillusionment (Edelwich & Brodsky, 1980), and so on. Surprisingly, researchers have provided only partial construct validation of the MBI, focusing more on what the dimensions of burnout do not mean (discriminant validity) than on what they do mean (convergent validity).

Leiter (1989) suggested that the burnout process can be understood in terms of the stress-strain-coping framework (Lazarus & Folkman, 1984). Frequently cited causes of burnout, such as role conflict and ambiguity, constitute sources of stress (Lee & Ashforth, 1989). Because these variables are antecedents of burnout, they were not examined here. Emotional exhaustion corresponds with the notion of strain as it has been linked to tension, anxiety, physical fatigue, insomnia, and so on (Maslach

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& Jackson, 1981; Perlman & Hartman, 1982). Thus, emotional exhaustion was predicted to be associated with psychological and physiological strain.

Depersonalization corresponds to the notion of coping; through depersonalization, the individual attempts to staunch the depletion of emotional energy by treating others as objects or numbers rather than as people (Kahill, 1988; Maslach, 1982). Ashforth and Lee (1990) argued that depersonalization constitutes one form of defensive behavior, defined as reactive and protective actions intended to avoid an unwanted demand or reduce a perceived threat. Thus, depersonalization was predicted to be associated with psychological strain and with escape as a method of coping.

Reduced personal accomplishment was regarded in this study as an outcome of the stress-strain-coping sequence (Leiter, 1989). Personal accomplishment represents an aspect of self-efficacy and is thus linked to adjustment to demanding situations (Bandura, 1986). Gecas (1989) suggested that self-efficacy reflects not only the perception of control (i.e., self-appraisal of performance or helplessness) but also the motivation to be in control (i.e., control as a method of coping). The perception of control hinges on beliefs of performance mastery (Meier, 1984), whereas the motivation to be in control is proactive (Lazarus & Folkman, 1984) and is strongest when a person feels capable of obtaining valued outcomes (Latack, 1986). Thus, personal accomplishment was predicted to be positively associated with the use of control as a method of coping and with self-appraisal of performance and to be negatively associated with a sense of helplessness.

Finally, although most validation studies have involved workers in the human-services professions, few attempts have been made to understand what the dimensions of burnout mean to the supervisors and managers of such workers. This is surprising, given the apparent prevalence of burnout at the managerial level and the detrimental effect of managerial burnout on the attitudes and performance of subordinates (Edelwich & Brodsky, 1980; Harvey & Raider, 1984). Accordingly, this study was conducted among supervisors and managers in a human-service setting.

## Method

### *Sample and Procedure*

The data were collected as part of a larger study on the antecedents and consequences of job burnout (Lee & Ashforth, 1989). Two hundred and nineteen supervisors and managers from a large public welfare agency of a major metropolitan county in the midwestern United States participated. Three fourths were first-level supervisors, and the remainder were second-level supervisors and managers. After list-wise deletion of missing data, the sample size was 181.

Over 70% of the respondents were women. The mean age was 45.3 years ( $SD = 7.8$ ). The mean job tenure was 11.1 years ( $SD = 6.8$ ); the mean organization tenure was 17.8 years ( $SD = 6.1$ ). About 90% of the sample had some college-level education. On average, the respondents reported spending 10% to 15% of the work day in direct contact with clients and 55% to 60% of their time with subordinates.

A questionnaire was administered on site. Participants were recruited through announcements at staff meetings and memos sent from top management. They were informed that the survey was part of a larger study on work-related stress and that a survey feedback report

would be made available to them. Prospective participants who were not present when the survey was administered were given the opportunity to mail their responses to the university.

### *Measures*

The three dimensions of burnout were measured by the MBI (Maslach & Jackson, 1981, 1986). Because the MBI was designed for human-service workers, several items on the Depersonalization and Accomplishment subscales pertain to interactions with clients (i.e., "recipients"). For the present sample of human-service supervisors and managers, we constructed parallel items pertaining to interactions with subordinates. However, because the subordinate items were highly correlated with their client counterpart items (mean  $r = .52$ ), they were combined to form the scales for depersonalization (8 items) and accomplishment (12 items). The scale for emotional exhaustion (9 items) remained unchanged. Maslach and Jackson (1986) report that the response formats of intensity and frequency are highly correlated. On the basis of their recommendation, we used only the frequency format.

Psychological and physiological aspects of strain were measured with 3- and 4-item scales developed by Patchen (1970). Control of and escape from stressful work situations were measured with 17- and 11-item scales developed by Latack (1986). Work-related helplessness was assessed with a 6-item scale by Ashforth (1989). Self-appraisal of performance in various aspects of work (e.g., ability to work effectively with others, quality of work, initiative), was measured with a 6-item scale developed by R. J. House (cited in Smith, 1982).

The descriptive statistics, estimates of internal consistency reliability, and intercorrelations of all variables are presented in Table 1.

### *Analyses*

The dimensionality of burnout was examined through confirmatory factor analysis with LISREL VI (Jöreskog & Sörbom, 1984). LISREL provides several indices of fit for evaluating the models, including the parsimonious fit index (PFI; James, Mulaik, & Brett, 1982). Because the PFI is based on the improvement in fit relative to a null model, it allows for comparisons of unnested models. The adequacy of the models' internal structure was evaluated by testing the significance of the parameters and by estimating the reliabilities of the factors and the average variances extracted from the factors (Bagozzi & Yi, 1988). Bagozzi and Yi indicated that reliability estimates larger than .60 and average variances extracted larger than .50 are desirable.

Composite indicators rather than the individual items were used for the factor analysis. Given the greater factor reliability of composite indicators (Bentler & Chou, 1987), analysis of all 29 items would likely have resulted in a poor fit. Items were combined to form three indicators for each burnout dimension according to the procedure outlined by Brooke, Russell, and Price (1988). A one-factor model was fit to the items for each dimension with LISREL. Items with the highest and lowest loadings were combined first, items with the next highest and lowest loadings were combined next, and so on until all items of a dimension had been assigned to one of the three indicators. Each indicator score was the mean of the item scores. A covariance matrix of the nine indicators served as input to LISREL.

Several plausible models were compared. In the one-factor model, all nine indicators were specified to load together. In the two-factor model, the Exhaustion and Depersonalization indicators were specified to load together, and the Accomplishment indicators were specified to load on a second factor. In the three-factor model, the indicators were specified to load on their respective constructs. For the latter two models, comparisons also were made between orthogonal and correlated factors.

Table 1  
*Descriptive Statistics and Intercorrelations of All Variables*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Emotional exhaustion	22.29	12.91	.93	.76**	.49**	.58**	.13	-.22*	-.23*	.43**	-.22*
2. Psychological strain	11.42	3.57		.86	.62**	.56**	.14	-.24*	-.34**	.28**	-.29**
3. Physiological strain	16.84	3.04			.75	.31**	.02	-.16	-.12	.14	-.18
4. Depersonalization	10.16	7.99				.81	.14	-.18	-.20*	.26**	-.35**
5. Escape situation	27.44	5.22					.74	.17	-.08	.24*	-.06
6. Control situation	66.91	9.30						.84	.42**	-.33**	.40**
7. Personal accomplishment	46.79	12.72							.85	-.20*	.44**
8. Helplessness	18.23	4.87								.85	-.14
9. Self-appraisal of performance	45.05	5.68									.84

Note. List-wise  $N = 181$ . Estimates of internal consistency are along the diagonal.

\*  $p < .01$ . \*\*  $p < .001$ .

Canonical correlation analysis was used to examine the relations between the three dimensions of burnout and the six correlates. This procedure was preferred to bivariate correlation or regression analysis because it took into account the high association between the Exhaustion and Depersonalization dimensions ( $r = .58$ ), and yet still showed whether the strain, coping, and self-efficacy variables were differentially related to the three aspects of burnout.

## Results

The results of the confirmatory factor analyses of the burnout indicators are shown in Table 2. The three-factor models (Models 4 [orthogonal] and 4' [correlated]) fit the data best, as evidenced by the lower chi-square ratios and higher PFIs. The significant chi-square difference between Models 4' and 4 (82.60,  $df = 3$ ,  $p < .001$ ) indicates that the factors were correlated, especially Exhaustion and Depersonalization ( $r = .66$ ). As shown in Table 3, all parameter estimates of Models 4 and 4' were significant and comparable. Moreover, for both models, all factor reliability estimates exceeded .80, and all average variances extracted from the factors exceeded .60. In summary, the

three-factor model was superior in fit to the two- and one-factor models, with the first two factors highly correlated.

The results of the canonical correlation analysis are presented in Table 4. Because of the strong association between the Exhaustion and Depersonalization dimensions, only two canonical variates were significant. The Exhaustion and Depersonalization dimensions largely defined the criterion set of the first variate, whereas the two types of strain and helplessness largely defined the predictor set. The canonical correlation was .83, and the redundancy coefficient for the criterion set was .37. The Personal Accomplishment dimension largely defined the criterion set for the second variate, whereas control and self-appraisal largely defined the predictor set. The canonical correlation was .48, and the redundancy coefficient for the criterion set was .06.

As expected, psychological strain and physiological strain were more strongly related to the first variate ( $rs = .94$  and  $.56$ ) than to the second ( $rs = .15$  and  $.33$ ), and self-appraisal of performance and control over stressful events were more strongly related to the second variate ( $rs = .72$  and  $.59$ ) than to the first ( $rs = -.45$  and  $-.39$ ). Contrary to expectations, escape from stressful situations did not load highly (i.e., less than .30; see Tabachnick & Fidell, 1983) on either variate, and helplessness was more strongly related to the first variate ( $r = .53$ ) than to the second ( $r = .10$ ). In summary, four of the six correlates loaded more highly on one of the two variates in the expected directions. The analysis provides partial evidence that the correlates were differentially related to the burnout dimensions.

## Discussion

Although Maslach's (1982) model of burnout has received increasing acceptance, questions remain concerning its dimensionality. The present results support the three-factor model, with the Emotional Exhaustion and Depersonalization factors being highly correlated. We also found the three dimensions to be closely related to variables reflecting aspects of strain, stress coping, and self-efficacy (cf. Leiter, 1989), although the high association between the Exhaustion and Depersonalization dimensions made it difficult to ascertain the unique contribution of each of these variables.

As expected, the Exhaustion and Depersonalization dimensions were more strongly associated with psychological and

Table 2  
*Indices of Overall Fit of the Burnout Models*

Model	$\chi^2$	<i>df</i>	GFI	AGFI	RMSR	PFI
1. Null	1,125.19*	27	.378	-.036	.731	—
2. 1 factor	385.35*	27	.672	.453	.255	.658
3. 2 factors, orthogonal	165.68*	27	.817	.695	.221	.853
3'. 2 factors, correlated <sup>a</sup>	155.25*	26	.825	.697	.125	.830
4. 3 factors, orthogonal	122.50*	27	.881	.801	.414	.891
4'. 3 factors, correlated <sup>b</sup>	39.90	24	.949	.904	.057	.857

Note. GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; RMSR = root-mean-square residual; PFI = parsimonious-fit index relative to Model 1.

<sup>a</sup> The chi-square difference from Model 3 = 10.43,  $df = 1$ ,  $p < .01$ . <sup>b</sup> The chi-square difference from Model 4 = 82.60,  $df = 3$ ,  $p < .001$ .

\*  $p < .001$ .

Table 3  
Parameter Estimates of Models 4 and 4'

Parameter Estimates of Models 1 and 2								
Indicator	Factor						r <sup>2</sup>	
	Emotional Exhaustion		Depersonalization		Personal Accomplishment			
	Model 4	Model 4'	Model 4	Model 4'	Model 4	Model 4'	Model 4	Model 4'
Emotional Exhaustion								
1	1.456	1.447					.925	.912
2	1.376	1.381					.814	.819
3	1.389	1.397					.856	.865
Depersonalization								
1			0.965	0.917			.634	.573
2			0.908	0.987			.612	.722
3			0.809	0.765			.633	.566
Personal Accomplishment								
1					0.990	0.998	.676	.686
2					0.949	0.949	.635	.635
3					0.970	0.963	.700	.689
Reliability estimate	.951	.951	.834	.830	.859	.859		
Average variance extracted	.865	.865	.626	.623	.670	.670		

Note. The coefficient of determination for Model 4 and for Model 4' is .999. All parameter estimates are significant at the .001 level. The Emotional Exhaustion and Depersonalization factors correlated .66; the Emotional Exhaustion and Personal Accomplishment factors correlated -.26; and the Depersonalization and Personal Accomplishment factors correlated -.24.

physiological strain than was the Personal Accomplishment dimension. This is consistent with recent reviews of the burnout literature (Golembiewski et al., 1986; Maslach & Jackson, 1986). Personal Accomplishment was more strongly associated with

perceptions of performance and the use of control, which together reflect the cognitive and behavioral aspects of efficacy expectations (Bandura, 1986; Gecas, 1989).

Unexpectedly, however, helplessness was more strongly related to the Emotional Exhaustion and Depersonalization dimensions than to the Personal Accomplishment dimension. Perhaps a sense of helplessness is more akin to the notion of strain than to that of accomplishment. Support for this suggestion comes from several quarters. The literature on hopelessness, for example, suggests that the symptoms of depersonalization are similar to those of depression and that the symptoms may develop in response to low expectations about the occurrence of valued outcomes and a sense of helplessness about increasing the likelihood of their occurrence (Abramson, Metalsky, & Alloy, 1989; Ashforth, in press). Similarly, helplessness is believed to dampen one's enthusiasm and motivation and thus may help trigger the burnout process itself (Cherniss, 1980; Greer & Wethered, 1984). However, the results may also reflect an artifact of the measures. The variables most strongly associated with the Emotional Exhaustion and Depersonalization dimensions are generally negatively worded, whereas those most strongly associated with the Personal Accomplishment dimension are generally positively worded.

Because depersonalization represents a defensive means of coping with the erosion of emotional energy, we predicted that depersonalization would be associated with a second defensive means of coping, *escape*. Escape, however, was not significantly associated with any of the burnout dimensions. The two means of coping may function as substitutes or complements, thus

Table 4  
Canonical Correlation Between the Burnout Dimensions and Six Correlates

Variable	Variate 1 canonical loading	Variate 2 canonical loading
<b>Burnout Dimensions</b>		
1. Emotional exhaustion	.94	.35
2. Depersonalization	.69	-.09
3. Personal accomplishment	-.51	.79
Explained variance	53.72	25.33
<b>Correlates</b>		
1. Psychological strain	.94	.15
2. Physiological strain	.56	.33
3. Escape situation	.18	-.05
4. Control situation	-.39	.59
5. Helplessness	.53	.10
6. Self-appraisal of performance	-.45	.72
Explained variance	31.02	16.88
Canonical correlation	.83	.48
Redundancy $R^2_{yx}$	.37	.06
Wilks $\lambda$	.24	.75
F ratio	18.19	5.52

Note. Both variates are significant at the .001 level. The signs of the loadings on Variate 1 are inverted to facilitate interpretation.

leading to an unstable set of associations (cf. Ashforth & Lee, 1990).

Four suggestions for future research derive from the present findings. First, because only self-report data were used, common-method variance may have partially accounted for the results. Future validation studies should consider employing multitrait, multimethod designs (e.g., Meier, 1984). Second, the tendency for negatively worded items to load on the first canonical variate and for positively worded items to load on the second suggests the need to modify the MBI to include positively and negatively worded items for each dimension. Third, the issue of generalizability to supervisors and line workers in other settings should be addressed. For example, Evans and Fischer (1989) questioned the applicability of depersonalization to nonservice employees; construct validation efforts should consider them as well. Finally, in view of the recent debate on the temporal sequence of the dimensions of burnout (Golembiewski et al., 1986; Leiter, 1989), longitudinal studies should be used to help unravel causality and possible feedback loops among the dimensions and to shed light on means of breaking what may well be a vicious circle (Edelwich & Brodsky, 1980).

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