

Journal of Management

<http://jom.sagepub.com>

Exploring the Relationship Between a Multidimensional and Multifaceted Burnout Concept and Self-Rated Performance

Evangelia Demerouti, Willem J. M. I. Verbeke and Arnold B. Bakker

Journal of Management 2005; 31; 186

DOI: 10.1177/0149206304271602

The online version of this article can be found at:
<http://jom.sagepub.com/cgi/content/abstract/31/2/186>

Published by:



<http://www.sagepublications.com>

On behalf of:



[Southern Management Association](#)

Additional services and information for *Journal of Management* can be found at:

Email Alerts: <http://jom.sagepub.com/cgi/alerts>

Subscriptions: <http://jom.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations <http://jom.sagepub.com/cgi/content/refs/31/2/186>

Exploring the Relationship Between a Multidimensional and Multifaceted Burnout Concept and Self-Rated Performance[†]

Evangelia Demerouti*

*Department of Social & Organizational Psychology, Utrecht University,
P.O. Box 80.140, 3508 TC Utrecht, the Netherlands*

Willem J. M. I. Verbeke

School of Economics, Erasmus University, Rotterdam, the Netherlands

Arnold B. Bakker

*Department of Social and Organizational Psychology, Utrecht University,
P.O. Box 80.140, 3508 TC Utrecht, the Netherlands*

This study examines the relationship between burnout and performance among three samples of account managers. Using a multidimensional and multifaceted burnout instrument, the authors tried to uncover meaningful configurations based on the basic symptoms of burnout and the role members to whom these symptoms refer. Subsequently, the authors explored how the revealed burnout configurations are related to in-role and extra-role performance. Cluster analysis resulted in five burnout configurations, including the burned-out group, the non-burned-out group, and three moderately burned-out groups. As predicted, the burnout configurations performed differently.

Keywords: *burnout; in-role performance; extra-role performance; self-regulation*

[†] This article was prepared while the first author was a postdoc at the University of Nijmegen, Department of Work and Organizational Psychology, the Netherlands. The authors gratefully acknowledge the suggestions of Joy Oliver and Jonathon Halbesleben on the final version of this article.

* Corresponding author. Tel.: +31 (30) 253-4812; fax: +31 (30) 253-7584.

E-mail address: E.Demerouti@fss.uu.nl

Journal of Management, Vol. 31 No. 2, April 2005 186-209

DOI: 10.1177/0149206304271602

© 2005 Southern Management Association. All rights reserved.

186

Beyond the recognition that the burnout experience entails a depletion of an individual's energy and emotional resources (e.g., Cordes & Dougherty, 1993; Gaines & Jermier, 1983), most researchers agree that burnout is multidimensional, composed of three components: emotional exhaustion, depersonalization, and reduced personal accomplishment (Lee & Ashforth, 1996; Maslach, Jackson, & Leiter, 1996). Moreover, several scholars have argued that burnout measures should refer to specific members of an employee's role set (e.g., Singh, Goolsby, & Rhoads, 1994). The role set refers to those people who have a vested interest in how the employee performs; the role set includes customers and managers, henceforth called "facets of burnout" (cf. Merton, 1957).

Ashforth (2001) proposed that employees seek to find a fit between their own self (e.g., resources or identity) and the specific role expectation within their organizational environment (Edwards, 1991). Configuration-driven researchers in organization theory propose that because of the fit process, a few person-organization configurations, or patterns, emerge (Meyer, Tsui, & Hinings, 1993). Research on burnout (e.g., Maslach, Schaufeli, & Leiter, 2001) has been predominantly contingency oriented (e.g., how organizational or personality variables might influence the different dimensions of burnout).

The contingency approach to organizational sciences focuses on the appropriate match between behavior and situation (Meyer et al., 1993). However, common sense and research findings suggest that contingency-based assumptions do not completely describe variations in the experience of burnout. For instance, the experience of burnout in our environment varies. Some individuals are burned out, others do not experience burnout at all, whereas others seem to function well even when experiencing considerable amounts of burnout. Research on managerial cognition shows that managers have and use complex multidimensional classification schemes, namely, configurations (Reger & Huff, 1993). Contingency theorists make simple causal assumptions between two variables that are linked by linear relationships involving unidirectional causation between exhaustion and performance and separately between depersonalization and performance. These insights highlight the limitations of an exclusive focus on the scores of individuals on single variables, ignoring joint scores across multiple dimensions (Meyer et al., 1993).

Rather than following a traditional "dimensionalizing" approach to understanding performance under the influence of burnout, this study has adopted a configurational approach (Meyer et al., 1993), wherein combinations of burnout form coherent patterns or constellations within each individual. This perspective is grounded in the explicit notion that "the parts of a social entity take their meaning from the whole and cannot be understood in isolation" (Meyer et al., 1993: 1178). Applied to burnout experiences, this approach is based on the analysis of the entire burnout syndrome and not its constituent parts (i.e., each burnout dimension considered separately) and aims at synthesizing broad burnout patterns from its fragmented dimensions (cf. Farmer & Maslyn, 1999). Our purpose is not to replace traditional contingency analyses of burnout behaviors and their relation to performance but rather to supplement contingency analyses with a perspective that may integrate our knowledge on burnout.

The first goal of this research is to follow Meyer et al.'s (1993) recommendation for establishing the usefulness of the contingency perspective of burnout. Our aim is to search for meaningful and coherent configurations of burnout indicators by simultaneously taking into

account the three basic symptoms of the syndrome and the role members to whom these symptoms refer.

Our second goal is to demonstrate how a configurations-based approach to burnout may extend our knowledge on the relationship between burnout and job performance beyond that provided by the often unclear findings of contingency research. For instance, Schaufeli and Enzmann (1998) reanalyzed five previous studies in which the relationship between burnout components, as measured by the Maslach Burnout Inventory–Human Service Survey (MBI-HSS) and self-reported performance was examined. They found that, on average, emotional exhaustion explained 5% of the variance in self-reported performance, depersonalization explained 4%, and reduced personal accomplishment explained only 6%. Studies that have examined objectively assessed performance (Keijsers, Schaufeli, Le Blanc, Zwerts, & Reis-Miranda, 1995) provide results that are even more disappointing. The explained variance averaged less than 1%, irrespective of the burnout dimension. Even more surprising is the finding that whereas some studies have demonstrated negative relationships between burnout dimensions and performance (e.g., Bhagat, Allie, & Ford, 1995; Parker & Kulik, 1995; Wright & Cropanzano, 1998), others have shown positive relationships (e.g., Keijsers et al., 1995). These conflicting views may reflect a relationship between burnout configurations rather than burnout dimensions and performance. As Meyer et al. (1993) suggested, variables found to be related in one configuration may be unrelated or even inversely related in another, thereby implying a nonlinear relationship.

To this end, we approached employees with clear performance goals through contact with supervisors, colleagues, and customers. We selected account managers, in particular, because they provide services to external customers (i.e., account managers sell value-adding services). However, we believe that our approach can be generalized to employees who provide services to internal customers (i.e., recipients of one's work product).

Conflicting Views on Burnout

There is agreement within the literature regarding the multidimensionality of burnout. The three main dimensions comprising burnout are exhaustion, depersonalization, and lack of personal accomplishment. Exhaustion refers to energy depletion or the draining of emotional resources and is characterized by mental, emotional, and physical fatigue (Maslach et al., 1996). Depersonalization refers to negative, cynical attitudes toward the recipients of one's services and is characterized as a dysfunctional kind of detached concern (Maslach et al., 1996). Finally, lack of personal accomplishment is the tendency to evaluate one's own work with recipients negatively and is often accompanied by feelings of inefficacy and poor self-esteem (Maslach, 1993). There are inconsistent interpretations regarding what the burnout dimensions actually mean, how they emerge, and how they relate to each other. That is, the nomological network of the construct is poorly defined.

First, most authors (Maslach, 1993; Maslach et al., 1996; Schaufeli & Enzmann, 1998) conceive of burnout as a syndrome consisting of independent components that have differential relationships with antecedents and consequences. For instance, emotional exhaustion is a direct result of the demands in the work environment, whereas depersonalization and reduced

personal accomplishment are primarily the result of a lack of job resources (e.g., Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Lee & Ashforth, 1996). Accordingly, employees may experience only one symptom of burnout depending on the prevailing work conditions.

Second, researchers such as Maslach et al. (1996) conceive burnout as a continuous, as opposed to dichotomous, variable. High levels of burnout are reflected in high scores on emotional exhaustion and depersonalization and low scores on personal accomplishment, whereas low scores on the first two dimensions and high scores on the last dimension are indicative of low burnout. Furthermore, Maslach and colleagues specify moderate levels of burnout as composed of average scores on all dimensions. The authors of the MBI-HSS, however, left several cases unspecified. For instance, it is unclear how to characterize employees with high scores on emotional exhaustion combined with low scores on both other dimensions. To ensure clarity in the present study, we will adopt the following terminology: An employee is considered as burned out only if emotional exhaustion and depersonalization are high and personal accomplishment is low. All other cases will be referred to as incomplete burnout.

Third, it has been suggested that burnout should be conceived of as a continuing energy depletion process in which employees who experience emotional exhaustion depersonalize in order to conserve their resources (Cordes & Dougherty, 1993; Maslach et al., 1996; Wright & Cropanzano, 1998). According to Maslach (1993), depersonalization is a dysfunctional coping mechanism that further deteriorates the relationship with recipients and gradually reduces the sense of personal accomplishment (see Bakker, Schaufeli, Sixma, Bosveld, & Van Dierendonck, 2000). Muraven, Tice, and Baumeister (1998) conjectured that burnout comes with ego depletion, which is evident in an individual's inability to intelligently self-regulate. Therefore, inability to self-regulate might explain why employees seek to depersonalize when emotionally exhausted. Meyerson (1994) has argued that burnout is differentially experienced by employees according to the norms of an organization or a profession. This implies that the burnout experience can be, to a certain extent, self-regulated by the individual experiencing burnout (i.e., coping; Edwards, 1992).

In addition, several authors have proposed that burnout should not only reflect three dimensions but include the behaviors and attitudes of employees toward role set members. For instance, because working with clients and subordinates is critical for managers, Lee and Ashforth (1993) modified the MBI-HSS to include items about clients and subordinates to measure manager burnout. Similarly, to use the MBI-HSS outside the human services professions, Golembiewski, Munzenrider, and Carter (1983) replaced the term *recipients* with *coworkers*. Finally, Singh et al. (1994) used the MBI-HSS to develop an even further differentiated burnout instrument, including items referring to different facets of employee role set, such as customers, colleagues, supervisors, and top management. However, they aggregated these facets. Only recently has research (Singh, 2000) used a disaggregated burnout scale involving burnout toward customers and top management.

What emerges from these observations is that external or personal conditions may elicit specific burnout experiences that may vary both in terms of dimension(s) and of persons to whom these experiences refer. Burnout should be understood in its entirety and not simply from consideration of its parts in isolation. Otherwise, there is little value in addressing burn-

out as opposed to exhaustion or depersonalization. An individual's burnout pattern is an indication not only of how burnout is experienced by an employee but also of the conditions that lead to this pattern and the outcomes to which it is related. In that respect, the configurational approach implies that the different configurations of burnout should differentially relate to various outcomes (Meyer et al., 1993). These issues have not been examined before; therefore, our study has an exploratory character.

Configurations of Burnout

The customer is the most important segment of a service provider's role set, and the key to service performance is the provider's ability to have a professional relationship with the customer (Bradach & Eccless, 1989; Rafaeli & Sutton, 1987). Therefore, account managers will make certain that they tailor their cognitive, physical, and emotional resources (e.g., via display rules) in accordance with their customers. This strategy is also referred to as "emotion work" (Hochschild, 1983) or "interactional strategies" (Snyder & Cantor, 1998). Unfortunately, "designing" the appropriate resource configuration is not always easy. Employees may become unable to maintain their cognitive, physical, and emotional efforts, resulting in emotional discomfort and feelings of exhaustion or depersonalization toward one member of the role set spreading toward other role set members.

Multidimensional and multifaceted burnout measures may be adroit instruments of how employees experience, regulate, and cohere their resources across different members of their role set. Indeed, a basic argument of a bottom-up approach (Salmon, 1989) has been offered by Singh (2000), who stated that "performance requires interaction with multiple role members, such that one or more role members belong to a distinctly different work group" (p. 17). Burnout then may be experienced with different intensities, as well as in different configurations consisting of not only the different components but also the different role members to whom these feelings might refer.

The first possible configuration that might result is employees who experience emotional exhaustion, depersonalization, and reduced personal accomplishment on all fronts (i.e., toward customers, supervisors, and colleagues). This group represents employees with a considerable depletion of energy and emotional resources. They are incapable of segmenting (i.e., "buffering," as referred to by Ashforth & Humphrey, 1995) and of exerting cognitive and emotional control over themselves (e.g., in the form of display rules) to conform to situations. Negative feelings toward one role set member will spill over toward other members of the role set. Opposite of this group may be a group of employees who will not experience any sort of burnout; these individuals have none of the burnout components toward any role member. These employees are either able to manage their emotions, adapt themselves to situations, or influence situations to adapt to them. Thus, we propose the following hypotheses:

Hypothesis 1a: Some employees will experience burnout (i.e., high exhaustion and depersonalization and low personal accomplishment) toward all role set members.

Hypothesis 1b: Some employees will experience no burnout (i.e., low exhaustion and depersonalization and high personal accomplishment) toward all role members.

In addition, there will be one or more groups of employees who experience moderate or incomplete burnout; the abilities of these employees to self-regulate their emotional, physical, and cognitive resources are not completely exhausted. Under moderate levels of burnout, we propose different possible patterns. First, some employees will have moderate scores on all burnout dimensions, consistent with the contention of Maslach et al. (1996). In other words, these employees are somehow able to spread their burnout feelings (i.e., emotional exhaustion and personal accomplishments) and interactions (i.e., depersonalization) evenly across all members of the role set. Second, there might be employees who remain capable of self-regulating their energy and emotional resources such that they do not spill over onto a larger set of role members. In other words, there will be employees who experience some or all of the burnout components but only toward a specific role set member (e.g., toward customers if we stick to the facet-specific meaning of burnout as proposed by Lee & Ashforth, 1993). Third, given the generally accepted notion that components of burnout may occur independently of each other (under specific conditions; see Demerouti et al., 2001), we consider the possibility that some employees will experience only one of its components toward all role set members.

The most likely component that account managers would experience is reduced personal accomplishment because personal accomplishment or general feelings of competence (Pines, 1993), mastery (Hobfoll & Freedy, 1993), and goal orientation (Hallsten, 1993) are crucial for service providers. Personal accomplishment is defined as the evaluation of one's relational skills in handling customers, which may influence self-efficacy beliefs regarding future performance. As Van Dierendonck, Schaufeli, and Buunk (2001) suggested, personal accomplishment may function as a basic or core resource to better handle the strains of the job.

On the basis of this overview, we expect several patterns of moderate or incomplete burnout:

Hypothesis 1c: Some employees will experience moderate levels on all burnout dimensions.

Hypothesis 1d: Some employees will experience high levels on one or more burnout dimension(s) (i.e., exhaustion or depersonalization or both) toward one but not all members of the role set, particularly toward customers.

Hypothesis 1e: Some employees will experience high levels on only one dimension of burnout, especially reduced accomplishment, directed at all members of the role set.

Configurations of Burnout and Self-Rated Performance

Configurational analysis of burnout might explain why conflicting views about the relationship between burnout and performance have been found in the literature using a contingency perspective. We focus specifically on both in-role and extra-role performance, the latter of which is rarely studied in relation to burnout. In-role performance is defined as those officially required outcomes and behaviors that directly serve the goals of the organization (Motowidlo & Van Scotter, 1994). Among other things, in-role performance includes meeting sales objectives and effective sales presentations (Behrman & Perreault, 1982). Like any other employee, account managers also display extra-role behaviors (Morrison, 1994). Extra-role

performance is defined as discretionary behaviors on the part of an employee that are believed to directly promote the effective functioning of an organization without necessarily directly influencing an employee's productivity (MacKenzie, Podsakoff, & Fetter, 1991). Although Bolino, Turnley, and Bloodgood (2002) noted that citizenship has different dimensions, we will focus on four: civic virtue, sportsmanship, altruism, and courteousness.

Civic virtue involves active participation in everyday company activities such as attending meetings, responding to messages in a timely fashion, and keeping up with company affairs (Organ & Paine, 1999). Sportsmanship implies enduring frustration and inconvenience not only without complaint but with a positive attitude. Altruism, or helping behavior, is the willingness to come to the aid of colleagues in terms of everyday support as well as concerning burdensome workloads. Courteousness refers to efforts at creating a pleasant social climate and avoiding negativism in interpersonal exchanges. Courteousness implies the ability to take the perspective of others and demonstrate empathetic behaviors. In subsequent sections, we explain how each of the burnout configurations uniquely affects, and at times acts in an opposing fashion to, the performance of employees who operate as service providers.

No-burnout group. Employees who have an abundance of emotional and cognitive resources are capable, via optimization, of allocating resources across their role set in order to accomplish their goals (Freund, Li, & Baltes, 1999). Therefore, they will show the highest in-role and extra-role performance within their organization as they are highly capable of handling their energy toward all the members of the role set.

Burnout group. Employees who experience burnout will not be able to demonstrate both in-role and extra-role performance. First, they are low on resources that would otherwise enable them to achieve high levels of in-role performance (Maslach, 1993). Second, they lack ability to demonstrate extra-role behaviors because, as Schaufeli and Enzmann (1998: 26) noted, burned-out employees lose their concern for the organization and become hypercritical and distrustful toward management, peers, and colleagues. Specifically, their extra-role performance, as evident through the performance of extra-role behaviors, will be low.

Hypothesis 2a: Employees who do not experience burnout will show the highest level of both in-role and extra-role performance.

Hypothesis 2b: Employees who experience burnout will show the lowest in-role and extra-role performance.

Moderate burnout. We conceive three different ways in which the moderate burnout configurations may influence performance:

First, for employees with moderate levels of burnout, we assume that they have the capacity to make smart decisions on whether to excel in one particular dimension of performance as opposed to another. They are forced to make a choice because of their depleted resources (also called "loss-management" or loss-based selection; Freund et al., 1999). Similarly, Wright, George, Farnsworth, and McMahan (1993) showed that when employees have to accomplish

difficult in-role performance goals, which cost them resources, they focus on in-role performance goals at the cost of extra-role performance. Therefore, we hypothesize that employees with moderate levels of burnout will reduce extra-role performance in favor of in-role performance. According to research on dual tasks, people choose to concentrate on one task rather than perform poorly on both tasks because of a lack of cognitive and emotional resources (Freund et al., 1999). This strategy might apply specifically to the employees who experience depersonalization toward customers. That is, those who are able to work with detached concern can compartmentalize their emotional resources. These employees will make the least number of decisions regarding which task to perform and use strategies like derogating, stereotyping, and blaming the service recipients, thus creating a psychological distance in order to protect themselves (Schaufeli & Enzmann, 1998).

Second, given the importance of the resource "relationship with customers" for service providers, employees who experience emotional exhaustion, whether toward one role set member or as part of moderate levels on all dimensions, will tend to limit their losses and engage in high in-role and extra-role performance (known as compensation) (Wright & Cropanzano, 1998). In this regard, Lee and Ashforth noted that people tend to "overweigh the consequences of losses . . . the resources expended to prevent further loss are greater than the threat of losses presented by the demands" (1996: 129). Similarly, Freudenberger (1974) observed that employees who are prone to burnout work too much, too long, and too intensively because they feel pressure both from within and outside of work. This pressure drives these employees to work harder in relation to both in-role and extra-role performance and ultimately risk breakdown.

Whereas both loss-based selection and compensation concern moderate levels of burnout, there is a substantial difference between them. In loss-based selection, which is applicable in the case of depersonalization, the employee remains intelligent on how to allocate resources. However, in compensation, which is applicable in the case of emotional exhaustion, self-regulatory ability deteriorates (e.g., Baumeister, Faber, & Wallace, 1999).

Finally, employees with high scores on one dimension toward the whole role set, where personal accomplishment is the main component, will have feelings of inefficacy and poor professional self-esteem (Maslach & Jackson, 1986; Maslach et al., 1996). Therefore, we consider these individuals incapable of making any efforts. Furthermore, they will achieve low extra-role and in-role performance. This has been statistically justified by the high correlations between personal accomplishment and performance (e.g., Klein & Verbeke, 1999).

Hypothesis 2c: Employees with depersonalization (toward customers) will engage in loss-based selection, achieving high in-role but low extra-role performance.

Hypothesis 2d: Employees with emotional exhaustion (toward customers) or with moderate levels on all dimensions will engage in compensation and will show high extra-role and in-role performance.

Hypothesis 2e: Employees with low personal accomplishment (toward one or all role set members) will exhibit low in-role and extra-role performance.

Method

Participants and Procedure

To collect data from Dutch account managers working in different industries, three different samples were approached using the same procedure. Initially, the managers of different organizations were requested to participate by telephone or during executive programs at a Dutch university. Interested companies were mailed an invitation to participate with the following stipulations: (a) All their account managers should be allowed to participate in order to avoid selection bias by management, and participation should be encouraged by management; and (b) questionnaires should be returned within 8 weeks. All account managers received a questionnaire and a cover letter explaining the purpose of the study and assuring confidentiality and anonymity. In addition, they were sent an addressed, stamped envelope to return their questionnaires directly to the researchers. It is important to note that the occupation of account manager tends to be male dominated in the Netherlands.

Sample 1 included employees from 11 different divisions that were independently operating within one large bank in the Netherlands. This bank sold financial packages consisting of financial services as well as insurance policies to businesses and individual consumers. In total, 399 questionnaires were sent, and 340 were returned (response rate = 85.2%). The sample was 81% male and 19% female. The average age of the sample was 35.7 years ($SD = 10.2$), and the average organizational tenure was 7.8 years ($SD = 9.0$).

Sample 2 included employees within 22 firms from three different industries: wholesale distribution (e.g., office equipment), services (e.g., financial services), and manufacturing (e.g., automobile manufacturers and food producers). Of the 346 surveys distributed, 197 were returned (response rate = 57.2%). This sample was 96% male and 4% female. The average participant in this sample was 37.4 years old ($SD = 10.4$), with a mean organizational tenure of 8.9 years ($SD = 8.7$).

Sample 3 consisted of mortgage representatives employed by a large Dutch bank. This sample differed from the first sample in that they sell in a transactional mode (i.e., customers do not buy a mortgage every year). The first sample consisted of account managers who developed long-term relationships with customers. A total of 346 questionnaires were sent directly to the account managers, and 122 were returned (response rate = 35.2%), with 78.4% of the sample being male. The average age was 36.4 years ($SD = 9.2$), and the mean organizational tenure was 8.2 years ($SD = 8.3$).

The differential response rates between the samples may have been due to the second author's close contact with the managers of Sample 1, who allowed him to distribute the questionnaires personally. We could not exercise this control in the other samples. Finally, after deleting cases with missing values, the total sample included 616 participants (i.e., Sample 1 = 318, Sample 2 = 182, Sample 3 = 116).

Measures

For all measures, we used a 7-point rating scale on which participants could indicate the extent to which they agreed with each statement (1 = *completely disagree*, 7 = *completely agree*).

Facet burnout. Facet burnout was measured with an instrument developed by Singh and his colleagues (1994), which is drawn from Maslach and Jackson's (1986) Burnout Inventory. The instrument includes two items for each burnout component that refer to customers, supervisor, and colleagues. We used Singh et al.'s (1994) original two-item scales without modification. Sample items include the following: "I feel I am working too hard for my customers," and "I feel emotionally drained by the pressure my boss puts on me" (emotional exhaustion); "I feel indifferent toward some of my customers," and "I feel I have become callous toward my coworkers" (depersonalization); "I feel effective in solving the problems of my customers," and "I feel my supervisor values my contribution to the firm" (personal accomplishment). High scores represent low burnout only for the Personal Accomplishment subscale.

In-role performance. To assess sales volume and sales interactions, we used self-rating scales developed by Behrmann and Perreault (1982). Sales volume was measured using seven items, while six items measured sales interaction. Sample items include the following: "Compared to my colleagues, I sell products with a higher profit-margin" (sales volume), and "Compared to my colleagues, I am better able to convince customers of the fact that I truly understand their unique problems and concerns" (sales interaction).

The test-retest reliability and construct validity of the in-role performance measure has been examined among a sample of 200 account managers and 42 managers from five industrial firms (Behrmann & Perreault, 1982). Using a 2-month time interval, the authors report a test-retest correlation of .70 for total scales. Moreover, self-reported sales volume and sales interaction correlated significantly with managers' evaluations ($r = .36, p < .001$, and $r = .23, p < .001$, respectively).

Extra-role performance. Extra-role performance is defined as actions that go beyond what is stated in formal job descriptions and those that increase organizational effectiveness. The instrument used in the present research was developed by MacKenzie et al. (1991). We measured the dimensions of civic virtue (three items; e.g., "I attend functions that are not required but that help the company image"), altruism (three items; e.g., "I help colleagues who have heavy work loads"), sportsmanship (four items; e.g., "I have a positive attitude toward colleagues and customers, irrespective of circumstances"), and courtesy (four items; e.g., "I consider the impact of my actions on others").

Results

A Multidimensional and Multifaceted Burnout Instrument

The dimensionality of the burnout instrument was examined in the total sample using confirmatory factor analysis (CFA) with the maximum likelihood method, and multitrait-multimethod matrices as proposed by Bagozzi (1993). Specifically, we tested the trait model, which hypothesizes that the variation in the items can be fully explained by the underlying traits (i.e., the three burnout components) plus error, and without any differentiation among facets. The 18 burnout items were modeled as observed variables and the burnout components as correlated latent factors.

In contrast, the facet model assumes that the structure is determined not by the burnout components but by the facets measured in the present research, namely, customers, supervisors, and colleagues. This model includes the 18 burnout items and three correlated latent (facet) factors.

The third model represents the multitrait-multimethod model, here the multitrait-multifacet (MTMF) model. It includes each burnout item as well as two categories of latent factors: (a) the three burnout components that are correlated and (b) the three facets, which are also correlated. Correlations between burnout components and facets were not included in this model. Each item had two loadings: one on a trait factor and one on a facet factor.

The final model tested whether role member burnout had discriminant validity (cf. Bagozzi, 1993). This was done by constraining the correlations among the facets in the MTMF model to 1.

The MTMF model proved to be superior to both the trait and the facet model, $\Delta \chi^2 (20) = 735.01, p < .001$ and $\Delta \chi^2 (21) = 1,063.71, p < .001$, respectively. The MTMF model revealed fit indices ($\chi^2 = 527.86, df = 113$, Goodness-of-Fit Index [GFI] = .91, root mean square error of approximation [RMSEA] = .07, Non-Normed Fit Index [NNFI] = .83, Comparative Fit Index [CFI] = .86, Incremental Fit Index [IFI] = .86) that did not meet the criteria for good fit, which may be partly attributable to the relatively large number of observed variables (i.e., 18 burnout items) and the large sample size (cf. Bentler & Chou, 1987). However, the parameter estimates had acceptable values, which is another indication of the plausibility of the model. In addition, the parsimonious GFI had a value of .61, which is acceptable (Byrne, 2001). Thus, both content- and facet-specific differentiation seem to be substantial. Furthermore, the model that assumes no discriminant validity for the different facets (i.e., MTMF constrained) was also significantly and substantially worse than the MTMF model ($\Delta \chi^2 (3) = 356.99, p < .001$), indicating that the facets are distinguishable factors.

The meaningfulness of the differentiation between burnout dimensions and burnout facets and the discriminant validity of the different facets of burnout can be observed in the correlation matrix (see Table 1) for the total sample. As displayed, the highest shared variance among the different composites is only 25% ($r = .50$). In addition, the means of some burnout subscales (e.g., exhaustion) are relatively low, indicating that participants of this study experienced rather low burnout. Finally, two of the burnout subscales have rather low internal consis-

Table 1
Means, Standard Deviations, Correlations, and Internal Consistencies of Scales in all Samples

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. EE customer	2.82	1.34	.51														
2. EE supervisor	2.28	1.21	.34**	.86													
3. EE colleagues	2.26	1.07	.30**	.50**	.61												
4. PA customer	5.60	0.85	-.09	-.20**	-.19**	.73											
5. PA supervisor	5.54	0.98	-.05	-.42**	-.21**	.37**	.73										
6. PA colleagues	5.42	0.91	-.12**	-.25**	-.20**	.37**	.47**	.77									
7. DP customer	2.35	1.16	.12**	.10	.25**	-.30**	-.05	-.16**	.64								
8. DP supervisor	3.34	1.27	.09	.28**	.25**	-.08	-.30**	-.09*	.24**	.42							
9. DP colleagues	3.21	1.30	.17**	.15**	.33**	-.15**	-.05	-.12**	.32**	.40**	.68						
10. Sales volume	4.91	0.82	-.04	-.19**	-.06	.36**	.35**	.36**	-.06	-.04	-.02	.90					
11. Sales interaction	5.13	0.76	-.10*	-.23**	-.08	.30**	.26**	.30**	-.06	-.04	.02	.64**	.82				
12. Civic virtue	5.82	0.84	-.03	-.17**	-.13**	.37**	.30**	.33**	-.18**	-.06	-.08*	.33**	.33**	.70			
13. Sportsmanship	5.35	1.04	-.20**	-.27**	-.28**	.27**	.22**	.21**	-.28**	-.25**	-.24**	.21**	.18**	.17**	.75		
14. Altruism	5.57	0.84	-.01	-.10*	-.10*	.25**	.21**	.29**	-.15**	-.10*	-.20**	.20**	.25**	.33**	.10*	.73	
15. Courtesy	5.63	0.77	-.02	-.05	-.11**	.31**	.20**	.24**	-.19**	-.03	-.17**	.14**	.20**	.41**	.12**	.38**	.70

Note: N = 616; Cronbach's alphas are placed on the diagonal. EE = emotional exhaustion; PA = personal accomplishment; DP = depersonalization.

*p < .05

**p < .01

the results of CFAs indicated that the items loaded substantially on the intended factors and that each subscale is only composed of two items.

Burnout Configurations

Before looking for identifiable burnout groups of employees, we tested whether employee responses were influenced by sample membership via multivariate analysis of variance (MANOVA), with sample as the independent variable and the nine burnout composites as repeated within-subject measures. Sample membership had no significant influence on the burnout composites, $F(2, 637) = 2.76$, n.s. In addition, the interaction of sample membership with scores on the burnout composites was nonsignificant (Wilks's lambda = .96), $F(16, 1260) = 1.48$, n.s. Therefore, it seemed statistically justified to combine the three samples for the subsequent analyses.

The next question was whether the hypothesized groups of employees could be empirically identified based on their responses on a multidimensional and multifaceted measure of burnout. To answer this question, we subjected the nine burnout composites as input (3 dimensions \times 3 facets [i.e., customer, colleague, and supervisor]) to Quick Cluster analysis in SPSS. To check the sensitivity or stability of the cluster solution, we randomly selected 50% of all cases ($N = 616$). The solution resulting from the initial sample ($n = 302$) was compared with the cluster structure of the holdout sample ($n = 314$).

On the basis of our first hypothesis, we expected at least five clusters. Moreover, the clusters should be meaningful, should not be formed with a high-distance coefficient (representing a very heterogeneous group composition), and the nine burnout subscales should differ in the emerging clusters. A five-cluster solution proved to be the simplest structure for attaining this goal.¹ The five clusters differed significantly on all burnout composites as was demonstrated by ANOVAs ($p < .001$).

The results of the cluster analysis for the initial, random sample are presented in the upper part of Table 2. Cluster 1 can be characterized as the cluster with relatively high depersonalization toward customers, and depersonalization toward supervisors and colleagues to a lesser extent (i.e., customer-depersonalized group). In addition, the cluster scores are generally below average on the exhaustion composites and somewhat above average on the personal-accomplishment composites. Cluster 2 is clearly the group with the composites for personal accomplishment below average (i.e., inefficacious group). Their emotional exhaustion and depersonalization z scores are average or below average. The members of Cluster 3 report above-average emotional exhaustion toward customers (i.e., customer-exhausted group). Interestingly, their scores on the other exhaustion composites are close to average, and their personal accomplishment scores are above average, whereas their scores on the depersonalization composites are below average. Cluster 4 includes all respondents with below-average scores on exhaustion and depersonalization, and above-average scores on personal accomplishment. This is clearly the least burned-out group (i.e., non-burned-out group). Finally, Cluster 5 appears to be the burned-out group because the exhaustion and depersonalization z scores of these employees are far above average, and their personal accomplishment scores are below average.

Table 2
Final Cluster Centers for Five-Cluster Solution

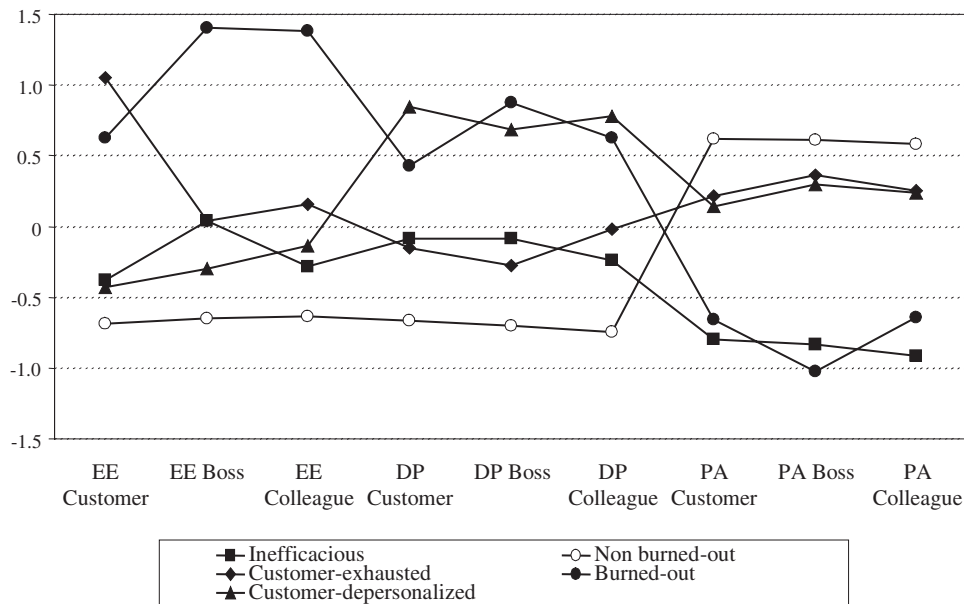
		EE	EE	EE	DP	DP	DP	PA	PA	PA
	<i>n</i>	Customer	Boss	Colleague	Customer	Boss	Colleague	Customer	Boss	Colleague
Initial sample										
Customer-depersonalized	63	-0.36	-0.31	0.05	1.03	0.67	0.10	-0.01	0.23	0.14
Inefficacious	61	-0.24	0.14	-0.21	-0.03	0.01	-0.03	-0.90	-0.75	-0.79
Customer-exhausted	62	1.07	0.08	0.14	-0.27	-0.20	-0.23	0.49	0.43	0.26
Non-burned-out	78	-0.67	-0.65	-0.69	-0.64	-0.69	-0.69	0.59	0.63	0.54
Burned-out	38	0.77	1.52	1.54	0.22	0.93	0.59	-0.09	-1.02	-0.65
Holdout sample										
Customer-depersonalized	56	-0.43	-0.37	-0.31	0.16	0.90	0.37	0.67	0.50	0.61
Inefficacious	56	-0.41	0.31	-0.22	-0.31	0.01	-0.63	-0.44	-1.16	-0.69
Customer-exhausted	74	0.82	-0.25	0.14	0.25	-0.42	0.47	-0.21	0.40	0.06
Non-burned-out	48	-0.68	-0.61	-0.63	-0.55	-0.89	-0.92	0.50	0.60	0.52
Burned-out	50	0.66	1.37	1.29	0.57	0.74	0.75	-1.05	-0.90	-0.70
Total sample										
Customer-depersonalized	116	-0.43	-0.29	-0.14	0.84	0.68	0.78	0.14	0.29	0.23
Inefficacious	107	-0.38	0.04	-0.29	-0.08	-0.08	-0.24	-0.80	-0.83	-0.92
Customer-exhausted	137	1.05	0.04	0.16	-0.15	-0.27	-0.02	0.21	0.37	0.25
Non-burned-out	163	-0.69	-0.65	-0.64	-0.66	-0.70	-0.74	0.62	0.62	0.59
Burned-out	93	0.63	1.40	1.38	0.43	0.88	0.63	-0.66	-1.03	-0.64

Note: The cluster centers are reported in *z*-score values. Total $N = 616$; n for initial sample = 302 and n for holdout sample = 314. EE = emotional exhaustion; PA = personal accomplishment; DP = depersonalization.

The same cluster pattern resulted for the holdout sample, with one exception (see Table 2). Cluster 1 of the holdout sample had the highest z score on depersonalization toward supervisors instead of depersonalization toward customers, which occurred in the initial sample. A cluster analysis on the total sample resulted in a solution highly similar to the initial sample. The final cluster centers for the total sample are displayed in the lower part of Table 2, and graphically in Figure 1. Additional cross-tabulation analysis indicated that there is a significant, but unsubstantially low relationship between the sample and cluster membership (Cramer's $V = .12$, $p < .01$; contingency coefficient = $.17$, $p < .01$).

The superiority of the five-cluster solution can be justified by the finding that in the four-cluster solution (using the total sample) the inefficacious and the burned-out group collapsed into one rather heterogeneous cluster, whereas the three other clusters remained unchanged. Although this solution points at some similarity between these clusters, it ignores the clearly different profile of the clusters with respect to exhaustion and depersonalization. Moreover, in the six-cluster solution, the customer-depersonalized cluster split into two clusters: a cluster

Figure 1
Cluster Profile for Total Sample: Z Scores for Five Clusters



Note: EE = emotional exhaustion; PA = personal accomplishment; DP = depersonalization.

with high depersonalization toward the customer and a cluster with high depersonalization toward the boss. These clusters consisted of a small number of cases (80 and 75, respectively), and their profile on the other clustering variables did not differ substantially.

As predicted in Hypothesis 1, employees could be classified into groups with or without burnout, but also into three groups with moderate levels of burnout. Two of them were facet specific (customer exhausted and customer depersonalized), and a third group was an inefficacious group, which was largely insensitive to facets. Although a group with moderate levels on all dimensions was expected (cf. Hypothesis 1c), the results did not substantiate this.

In-Role and Extra-Role Performance of the Burnout Clusters

To test Hypothesis 2, we examined whether the burnout configurations for the various clusters would differ in terms of in-role and extra-role performance. This is another test of the generality of the cluster solution against relevant criteria (Aldenderfer & Blashfield, 1984). Accordingly, the clusters require comparison on variables not used to generate the cluster solution. Possible differences were examined by means of ANOVA. In this analysis, we tested the differences between the clusters using the solution of the total sample on each dimension of

Table 3
Differences in Cluster Membership After Controlling for the
Sample Effect and the Other Performance Measures

	Estimated Means for Cluster					<i>F</i> (4, 615)	<i>p</i>	η^2
	1 Customer- Depersonalized (<i>n</i> = 116)	2 Inefficacious (<i>n</i> = 107)	3 Customer- Exhausted (<i>n</i> = 137)	4 Non- Burned-Out (<i>n</i> = 163)	5 Burned-Out (<i>n</i> = 93)			
In-role performance								
Sales volume	5.00 _a	4.66 _b	5.00 _a	5.06 _a	4.82 _b	6.65	.001	.042
Sales interaction	5.21	5.08	5.12	5.15	5.11	0.74	n.s.	.005
Extra-role performance								
Civic virtue	5.87 _{ac}	5.67 _{bc}	6.00 _a	5.92 _a	5.71 _c	4.29	.002	.028
Altruism	5.40 _a	5.63	5.66 _b	5.67 _b	5.53	2.90	.021	.019
Sportsmanship	5.26 _a	5.32 _a	5.43 _a	5.76 _b	4.72 _c	17.83	.001	.106
Courtesy	5.65	5.53	5.64	5.77	5.64	1.93	n.s.	.013

Note: Sample is included as two dummy-coded variables. Means with different subscripts differ significantly at the $p < .05$ level.

in-role and extra-role performance. We controlled for sample effects using two dummy-coded variables, as well as for all other dimensions of performance. This was done to find the unique effect of clusters on each of the performance dimensions. The results are displayed in Table 3. After controlling for the effect of sample and of the other performance measures, sales volume, civic virtue, altruism, and sportsmanship vary significantly across the five groups (F values range from 2.90 to 17.83). As the eta squares (η^2) in Table 3 show, cluster membership explained 4% of the variance in sales volume and between 2% and 11% of the variance in extra-role performance dimensions. A further inspection of Table 3 indicates the following trend: The non-burned-out, customer-exhausted, and customer-depersonalized groups have the highest in-role and extra-role performance, whereas the inefficacious and burned-out groups report the worst in-role and extra-role performance. In addition, we note that the customer-exhausted group exhibits substantially high in-role and extra-role performance, thereby implying compensation, whereas the customer-depersonalized group shows a substantially high in-role performance but somewhat lower extra-role performance, implying loss-based selection. In general, these findings substantiate Hypothesis 2.

Post hoc comparisons (displayed in Table 3) confirm that the inefficacious and the burned-out group perform significantly worse than all other clusters (cf. Hypotheses 2b and 2e). The differences between these two specific groups are not significant, save one exception: The inefficacious group reported higher scores on sportsmanship than did the burned-out group. Similarly, the three other groups (non-burned-out, customer-exhausted, and customer-depersonalized groups) did not differ significantly in their in-role performance (cf. Hypotheses 2a, 2c, and 2d). However, they differed in extra-role performance (cf. Hypothesis 2c). Specifically, the customer-depersonalized group had significantly lower scores on altruism and

sportsmanship than the non-burned-out group and lower scores on altruism than the customer-exhausted group.

Discussion

The present research applied a configurational approach to burnout. We hypothesized that meaningful and coherent configurations of burnout indicators would emerge by taking into account the three basic symptoms of burnout and the role members to whom these symptoms refer. In addition, we hypothesized that these configurations would be differentially related to performance. The analyses produced five configurations of burnout that largely substantiated our hypotheses. In addition, a strength of our research is that the findings have been cross-validated in a randomly derived holdout sample. Subsequently, we explored how employee membership in different clusters affected their in-role and extra-role performance. As predicted, employees characterized by different configurations of burnout performed differently.

Burnout Configurations

Cluster analyses of the responses to multidimensional and multifaceted burnout scales produced five coherent and meaningful clusters (Singh et al., 1994). This suggests that employees, in our case service employees, fit their emotional and cognitive resources across their role set. As predicted, one cluster of employees, called the non-burned-out group, displayed no signs of burnout. A second, called the burned-out group, reported elevated scores on each of the three burnout dimensions toward all members of their role set (consisting of customers, colleagues, and supervisors). This suggests that burned-out employees failed to intelligently self-regulate their energy. This group had the lowest prevalence, which agrees with other studies on Dutch populations (Bakker, Schaufeli, & Van Dierendonck, 2000). In addition, we found three groups of employees with moderate or incomplete burnout. These groups included the customer-exhausted group, which experienced emotional exhaustion in front of their customers; the customer-depersonalized group, which reported negative, callous attitudes toward customers; and the inefficacious group, which experienced reduced personal accomplishment across all members of their role set.

Do these clusters make sense, and do they substantiate our hypotheses? In general, these clusters are meaningful, and our first hypothesis was largely confirmed. What is salient is that the customer-exhausted group and the customer-depersonalized group were facet specific. This gives credence to our thesis that employees with moderate levels of burnout may be able to regulate their negative feelings or attitudes toward one member of the role set. Although both clusters were expected, the emergence of a customer-depersonalized group may seem counterintuitive. Customers are the most important role set members for service employees, yet the customer-depersonalized cluster behaved in a formal or reserved way toward their customers and to a lesser extent toward their colleagues or boss. As will be discussed in more detail later, we believe that this group of account managers engages in proactive coping as they do not experience emotional exhaustion. Finally, reduced personal accomplishment, which is

often accompanied by feelings of inefficacy and poor self-esteem (Maslach, 1993), was not facet specific. In other words, once employees experience reduced personal accomplishment, it spreads across all members of their role set, and they feel they cannot contribute to the firm (e.g., Van Dierendonck et al., 2001).

The main theoretical and practical implication of these findings is that rather than speaking about “burnout,” researchers and practitioners should be aware that several patterns of burnout might exist. Such configurations should first be recognized in order to formulate meaningful hypotheses and to enable successful interventions.

Burnout and Performance

Our second research question was whether the identified clusters enable us to say anything substantial about employees’ in-role and extra-role performance. At the trivial level, our data indicated that burned-out employees reported the lowest in-role and extra-role performance, whereas those with no signs of burnout at all reported highest in-role and extra-role performance. In other words, burnout is a reflection of a person’s energy resources: When no resources are left, employees become the organization’s worst performers. More interesting, however, are the groups of employees with moderate or incomplete burnout. They were hypothesized to engage in either compensation or loss-based selection.

First, the employees who depersonalized toward their customers showed that, despite their depersonalization, they were successful in selling products and services (i.e., their in-role performance was on par with that of the non-burned-out group). In addition, they displayed adequate organizational citizenship behaviors (i.e., satisfactory scores on several aspects of extra-role performance). However, their scores for sportsmanship and altruism were relatively low. These employees engaged in loss-based selection but probably did so in a proactive manner, namely, they have developed an attitude of “detached concern” (Lief & Fox, 1963). These employees take the perspective of their customers and have concern for their problems and/or demands, as indicated by relatively high scores on sales interaction, but they maintain the emotional detachment necessary to remain objective about these problems and/or demands.

Second, employees who experience emotional exhaustion toward customers coupled with low levels on the remaining burnout dimensions/segments reported high levels of in-role and extra-role performance. This finding is in line with the finding of Cropanzano, Rupp, and Byrne (2003) that emotional exhaustion indirectly predicted in-role and extra-role performance through organizational commitment. Feeling exhausted does not inhibit employees from remaining fully occupied with their work in order to reach company and personal goals. To achieve these goals, they must work hard to compensate for their feelings of exhaustion (Freudenberger & Richelson, 1980). Similarly, Hockey (1993) suggested that individuals use a performance-protection strategy under the influence of environmental demands. Performance protection is achieved through the mobilization of sympathetic activation and/or increased subjective effort.

The operation of this strategy makes it difficult to demonstrate overt decrements in primary task (i.e., in-role) performance. However, several different patterns of indirect degradation may be identified, such as strategy adjustments (e.g., narrowing of attention) and fatigue after-

effects (e.g., risky choices, high subjective fatigue). In the long term, this leads to a draining of an individual's energy and an eventual state of breakdown.

Third, the performance of the inefficacious group was as low as that of the burned-out group, and these groups demonstrated the highest similarity. Recall that these groups collapsed in one cluster in the four-cluster solution; although this finding could be inflated by conceptual similarity between personal accomplishment and in-role performance, both the moderate correlations between these constructs ($r \leq .36$) and the consistent findings regarding extra-role performance speak against this interpretation. The fact that this group was neither exhausted nor depersonalized, especially in comparison with the burned-out group, suggests that reduced personal accomplishment reflects a crucial experience for employees operating as service providers. This finding confirms the idea (e.g., Maslach & Jackson, 1986) that lack of personal accomplishment comes with feelings of inefficacy and poor professional self-esteem, both of which explain low in-role and extra-role performance.

Limitations

A possible limitation of the present research is its cross-sectional design. A basic problem of cross-sectional studies is that of common method variance, where relationships between variables are overestimated because the variables have been assessed with the same self-report instrument. However, the differential pattern of relationships found in our study (i.e., between role members' burnout and the indicators of performance) is unlikely to be attributable to common method variance because such variance tends to blur differential relationships (cf. Singh, 2000). Second, for the measurement of role member burnout, we used the scale of Singh et al. (1994), which contains only two items for each role member composite, resulting in a few scales with low internal consistencies. However, the average interitem correlation for each burnout composite with low internal consistency was clearly higher than the correlations between these burnout composites and the other constructs. Nevertheless, it is recommendable that future studies expand these burnout measures because adding items generally increases a test's internal consistency (Anastasi, 1988).

A third limitation concerns the use of self-rated performance instead of ratings made by others, such as peers or supervisors. Self-ratings may be biased and may not converge with other ratings, such as those made by others or from objective performance measures. Although Churchill, Ford, Hartley, and Walker (1985) found that self-reported performance measures have less restriction of range and less error than several purportedly objective measures, self-report data are sometimes difficult to interpret. The best method to combat this difficulty is to collect data from multiple sources, which reduces the error coming from any single source. The fact that our findings (i.e., the correlation pattern) were similar to earlier studies on the relationship between burnout and performance, whether objectively or subjectively estimated (Cropanzano et al., 2003; Schaufeli & Enzmann, 1998), indicates that monomethod measures were not a serious threat. Moreover, we examined the influence of one response set artifact potentially relevant to the present research, namely, social desirability. The results indicated that the correlations between each of the burnout composites, and, conversely, the perfor-

mance measures, did not differ substantially from the partial correlations controlling for social desirability.

Implications and Directions for Future Research

Burnout has been studied from a configuration point of view, and this study shows that burnout is a versatile concept that is sensitive to the organizational environment in which employees are embedded. We propose some research projects that may offer additional insights based on this observation.

First, it may be that the burnout configurations we have uncovered are specific to the jobs of account managers and thus cannot be found in other jobs or contexts. Indeed, account managers have the freedom to self-regulate their resources, perhaps because of the nature of their work (e.g., often working outside the organization). Self-regulation may not be possible in occupations where employees have less freedom over their own tasks (e.g., nurses) or in occupations where extra-role performance is as important as in-role performance (e.g., line managers). Future research should explore other occupations to examine whether a similar pattern of emotional self-regulation applies.

Second, although burnout is job or context specific, the method of employee self-regulation of resources should be examined further. On the basis of the work of Ashforth (2001) and Cervone (1999), we suggest that burnout should be conceived from a coherent and dynamic point of view: Namely, the way in which the dimensions and facets of burnout fit is an emergent property of how employees interact with a large role set. This coherent burnout experience has dynamic properties as well. For instance, could it be that the employees who experience emotional exhaustion toward customers while engaging in compensation, perhaps by trying to keep abreast of in-role as well as extra-role performance, will drift into the burnout cluster? A longitudinal study could provide insights into how employees evolve from one burnout configuration into another.

Third, we are especially puzzled by the finding that the employees who depersonalize toward their customers remain able to achieve in-role as well as extra-role performance. Does this cluster reflect individuals who possess a (conscious) proactive ability to cope with emotional exhaustion toward their customers, or has this group acquired those coping strategies on the job? Ashforth and Humphrey (1995) mentioned that in some professions, negative emotions are an unavoidable byproduct of role performance. These authors suggest that some professions (e.g., medicine) train their employees for “detached concern” in order to oscillate between the human concern and professional detachment necessary for hard rational analysis.

Fourth, although the configuration approach provided several interesting insights into the burnout phenomenon, we were only able to explain 4% of the variance in in-role performance and 11% of the variance in extra-role performance. Does this mean that burnout, contrary to the general belief, is, in fact, largely unrelated to performance or that the burnout-performance relationship cannot be detected among working populations due to the “healthy worker” effect (Karasek & Theorell, 1990)? Or, does it suggest that we need more sensitive and specific performance measures to uncover this relationship? These questions also remain open for future research.

By using multidimensional and multifaceted burnout measures, we were able to detect differential relationships among burnout configurations and in-role as well as extra-role performance. We believe that researchers should use such multidimensional and multifaceted burnout scales in future research. By doing so, researchers can better capture employees as embedded in an organizational context who self-regulate their own professional identity (Burke, 1996). Such an approach may be a good starting point to discuss whether the field of organizational behavior should renew a discussion about what is meant by *burnout*.

Note

1. Results were comparable when we used a multistep procedure (Sharma, 1996), in which the first study served as the analysis sample and the other two samples served as validation samples. The analysis sample was used to generate the possible cluster solutions, and the validation samples were used to isolate the cluster solution with the maximum validity out of the range of possible solutions. Validity was based on the correspondence between the unconstrained (i.e., configuration without any restrictions) and the constrained (i.e., configurations of the cases in the validation samples based on the results of the analysis sample) solution. The constrained and unconstrained solutions were compared using the coefficient of agreement Kappa (Cohen, 1968), which expresses the correspondence between the solutions or classifications. In both validation samples, the highest Kappa resulted for the three-cluster solution, followed by the five-cluster solution. However, the three-cluster solution was formed with a high distance coefficient, and the five-cluster solution provided the next highest Kappa coefficient in both validation samples.

References

- Aldenderfer, M. S., & Blashfield, R. K. 1984. *Cluster analysis*. Beverly Hills, CA: Sage.
- Anastasi, A. 1988. *Psychological testing* (6th ed). New York: Macmillan.
- Ashforth, B. E. 2001. *Role transitions in organizational life: An identity-based perspective*. Hillsdale, NJ: Lawrence Erlbaum.
- Ashforth, B. E., & Humphrey, R. H. 1995. Emotion in the workplace: A reappraisal. *Human Relations*, 48: 97-125.
- Bagozzi, R. P. 1993. An examination of the psychometric properties of measures of negative affect in the PANAS-X scales. *Journal of Personality and Social Psychology*, 65: 836-851.
- Bakker, A. B., Demerouti, E., Taris, T. W., Schaufeli, W. B., & Schreurs, P. J. G. 2003. A multi-group analysis of the job demands—Resources model in four home-care organizations. *International Journal of Stress Management*, 10: 16-38.
- Bakker, A. B., Schaufeli, W. B., Sixma, H., Bosveld, W., & Van Dierendonck, D. 2000. Patient demands, lack of reciprocity, and burnout: A five-year longitudinal study among general practitioners. *Journal of Organizational Behavior*, 21: 425-441.
- Bakker, A. B., Schaufeli, W. B., & Van Dierendonck, D. 2000. Burnout: Prevalentie, risicogroepen en risicofactoren [Burnout: Prevalence, risk groups and risk factors]. In I. L. D. Houtman, W. B. Schaufeli, & T. W. Taris (Eds.), *Psychische vermoeidheid en werk: Cijfers, trends en analyses*: 65-82. Alphen a/d Rijn, the Netherlands: Samsom.
- Baumeister, R. F., Faber, J. E., & Wallace, H. M. 1999. Coping and ego depletion. In C. R. Snyder (Ed.), *Coping: The psychology of what works*: 50-89. Oxford, UK: Oxford University Press.
- Behrman, D. N., & Perreault, W. D. J. 1982. Measuring performance of industrial persons. *Journal of Business Research*, 10: 355-370.
- Bentler, P. M., & Chou, C. P. 1987. Practical issues in structural modeling. *Social Methods and Research*, 16: 78-117.
- Bhagat, R. S., Allie, S. M., & Ford, D. L. 1995. Coping with stressful events: An empirical analysis. In R. Crandall & P. L. Perrewe (Eds.), *Occupational stress: A handbook. Series in Health Psychology and Behavioral Medicine*: 93-112. Philadelphia: Taylor & Francis.

- Bolino, M. C., Turnley, W. H., & Bloodgood, J. M. 2002. Citizenship behavior and the creation of social capital in organizations. *Academy of Management Review*, 27: 505-522.
- Bradach, P. J., & Eccles, R. C. 1989. Price, authority, and trust: From ideal types to plural forms. *Annual Review of Sociology*, 16: 836-849.
- Burke, P. J. 1996. Social identities and psychosocial stress. In H. B. Kaplan (Ed.), *Psychosocial stress: Perspectives on structure, theory, life course and methods*: 141-174. New York: Academic Press.
- Byrne, B. M. 2001. *Structural equation modelling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Lawrence Erlbaum.
- Cervone, D. 1999. Bottom-up explanation in personality psychology. In D. Cervone & Y. Shoda (Eds.), *The coherence of personality: Social-cognitive bases of consistency, variability, and organization*: 303-341. New York: Guilford.
- Churchill, G. A., Ford, N. M., Hartley, S. W., & Walker, O. C. 1985. The determinants of salesperson performance: A meta-analysis. *Journal of Marketing Research*, 22: 103-118.
- Cohen, J. 1968. Weighted kappa: Nominal scale agreement provision for scaled disagreement or partial credit. *Psychological Bulletin*, 70: 213-220.
- Cordes, C., & Dougherty, T. W. 1993. A review and an integration of research on job burnout. *Academy of Management Review*, 18: 621-656.
- Cropanzano, R., Rupp, D. E., & Byrne, Z. S. 2003. The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors. *Journal of Applied Psychology*, 88: 160-169.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. 2001. The job demands—Resources model. *Journal of Applied Psychology*, 86: 499-512.
- Edwards, J. R. 1991. Person-job fit: A conceptual integration, literature review, and methodological critique. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology*, 238-357. Oxford, UK: Wiley.
- Edwards, J. R. 1992. A cybernetic theory of stress, coping, and well-being in organizations. *Academy of Management Review*, 17: 238-274.
- Farmer, S. M., & Maslyn, J. M. 1999. Why are styles of upward influence neglected? Making the case for a configural approach to influence. *Journal of Management*, 25: 653-682.
- Freudenberger, H. J. 1974. Staff burnout syndrome in alternative institutions. *Psychotherapy: Theory, Research, and Practice*, 12: 72-83.
- Freudenberger, H. J., & Richelson, G. 1980. *Burnout: The high cost of high achievement*. Garden City, NY: Doubleday.
- Freund, A., Li, K. Z., & Baltes, H. P. B. 1999. Successful development and aging. In J. Brandtstädter & R. M. Lerner (Eds.), *Action and development: Theory and research through the life span*: 401-434. Thousand Oaks, CA: Sage.
- Gaines, J., & Jermier, J. M. 1983. Emotional exhaustion in a high stress organization. *Academy of Management Journal*, 26: 567-586.
- Golembiewski, R. T., Munzenrider, R., & Carter, D. 1983. Phases of progressive burnout and work site covariants: Critical issues in OD research and praxis. *Journal of Applied Behavioral Science*, 19: 461-481.
- Hallsten, L. 1993. Burning out: A framework. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*: 95-113. Washington, DC: Taylor & Francis.
- Hobfoll, S. E., & Freedy, J. 1993. Conservation of resources: A general stress theory applied to burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*: 115-129. Washington, DC: Taylor & Francis.
- Hochschild, A. 1983. *The managed heart: The commercialisation of human feeling*. Berkeley: University of California Press.
- Hockey, G. R. J. 1993. Cognitive-energetical control mechanisms in the management of work demands and psychological health. In A. Baddely & L. Weiskrantz (Eds.), *Attention: Selection, awareness, and control*: 328-345. Oxford, UK: Clarendon.
- Karasek, R., & Theorell, T. 1990. *Healthy work: Stress, productivity, and the reconstruction of working life*. New York: Basic Books.
- Keijsers, G. J., Schaufeli, W. B., Le Blanc, P. M., Zwerts, C., & Reis-Miranda, D. 1995. Performance and burnout in intensive care units. *Work & Stress*, 9: 513-527.
- Klein, D. J., & Verbeke, W. 1999. Autonomic feedback in stressful environments: How do individual differences in autonomic feedback relate to burnout, job performance, and job attitudes in account managers? *Journal of Applied Psychology*, 84: 911-924.

- Lee, R. T., & Ashforth, B. E. 1993. A further examination of managerial burnout: Toward an integrated model. *Journal of Organizational Behavior*, 14: 3-20.
- Lee, R. T., & Ashforth, B. E. 1996. A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81: 123-133.
- Lief, H. I., & Fox, R. C. 1963. Training for "detached concern" in medical students. In H. I. Lief, V. F. Lief, & N. R. Lief (Eds.), *The psychological basis of medical practice*: 12-35. New York: Harper & Row.
- MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. 1991. Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons. *Organizational Behavior and Human Decision Processes*, 50: 123-150.
- Maslach, C. 1993. Burnout: A multidimensional perspective. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*: 19-32. Washington, DC: Taylor & Francis.
- Maslach, C., & Jackson, S. E. 1986. *Maslach Burnout Inventory: Second edition*. Palo Alto, CA: Consulting Psychologists.
- Maslach, C., Jackson, S. E., & Leiter, M. P. 1996. *Maslach Burnout Inventory: Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. 2001. Job burnout. *Annual Review of Psychology*, 52: 397-422.
- Merton, R. K. 1957. The role set: Problems in sociological theory. *British Journal of Sociology*, 8: 106-120.
- Meyer, A. D., Tsui, A. S., & Hinings, C. R. 1993. Configurational approaches to organizational analysis. *Academy of Management Journal*, 36: 1175-1195.
- Meyerson, D. E. 1994. Interpretations of stress in institutions: The cultural production of ambiguity and burnout. *Administrative Science Quarterly*, 39: 628-653.
- Morrison, E. W. 1994. Role definitions and organizational citizenship behavior: The importance of employee's perspective. *Academy of Management Journal*, 37: 1543-1567.
- Motowidlo, S. J., & Van Scotter, J. R. 1994. Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, 79: 475-480.
- Muraven, M., Tice, D. M., & Baumeister, R. F. 1998. Self-control as limited resource: Regulatory depletion patterns. *Journal of Personality and Social Psychology*, 74: 774-789.
- Organ, D. W., & Paine, J. B. 1999. A new kind of performance for industrial and organizational psychology: Recent contributions to the study of organizational citizenship behavior. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology*: 337-368. Oxford, UK: Wiley.
- Parker, P. A., & Kulik, J. A. 1995. Burnout, self- and supervisor-related job performance, and absenteeism among nurses. *Journal of Behavioral Medicine*, 18: 581-599.
- Pines, A. M. 1993. An existential perspective. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*: 33-52. Washington, DC: Taylor & Francis.
- Rafaeli, A., & Sutton, R. I. 1987. Expression of emotion as part of the work role. *Academy of Management Review*, 12: 23-37.
- Reger, R. K., & Huff, A. S. 1993. Strategic groups: A cognitive perspective. *Strategic Management Journal*, 14: 103-124.
- Salmon, W. C. 1989. Four decades of scientific explanation. In P. Kitcher & W. C. Salmon (Eds.), *Minnesota studies in the philosophy of science: Vol. 13. Scientific explanations*: 3-219. Minneapolis: University of Minnesota Press.
- Schaufeli, W. B., & Enzmann, D. 1998. *The burnout companion to research and practice: A critical analysis*. London: Taylor & Francis.
- Sharma, S. 1996. *Applied multivariate techniques*. New York: John Wiley.
- Singh, J. 2000. Performance productivity and quality of frontline employees in service organizations. *Journal of Marketing*, 64: 15-34.
- Singh, J., Goolsby, J. R., & Rhoads, G. K. 1994. Behavioral and psychological consequences of boundary spanning burnout for customer service representatives. *Journal of Marketing Research*, 31: 558-569.
- Snyder, M., & Cantor, N. 1998. Understanding personality and social behavior: A functionalist strategy. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 2): 635-679. Boston: McGraw-Hill.
- Van Dierendonck, D., Schaufeli, W. B., & Buunk, B. P. 2001. Towards a process model of burnout: Results from a secondary analysis. *European Journal of Work and Organizational Psychology*, 10: 41-52.

- Wright, P. M., George, J. M., Farnsworth, S. R., & McMahan, G. C. 1993. Productivity and extra-role behavior: The effects of goals and incentives on spontaneous helping. *Journal of Applied Psychology*, 78: 374-381.
- Wright, T. A., & Cropanzano, R. 1998. Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83: 486-493.

Biographical Notes

Evangelia Demerouti is an assistant professor of social and organizational psychology at Utrecht University, the Netherlands. She received her Ph.D. in burnout from Oldenburg University, Germany. Her main research interests concern topics from the field of work and health including the job demands—resources model, burnout, work-family interface, crossover of strain, flexible working times and shift work, and job design.

Willem J. M. I. Verbeke is the chaired professor in sales and account management within the Department of Marketing and Organization (School of Economics), research star member at the Erasmus Research Institute of Management (ERIM), and director of the Institute for Sales and Account Management (ISAM) at Erasmus University, Rotterdam, the Netherlands. He received his Ph.D. in 1986 from the University of Pennsylvania. His research interests are sales and account management networks and the role of emotions within sales and account management.

Arnold B. Bakker is a professor of positive behavior at Utrecht University, the Netherlands. He received his Ph.D. in attitude change from the University of Groningen and published several articles on the job demands—resources model, attitudes, burnout, and work engagement. His research interests include positive organizational behavior, crossover of stress and happiness, and organizational performance.