

# JOURNAL OF MANAGEMENT

Journal of Management 2004 30(6) 859-879

# **Burnout in Organizational Life**

# Jonathon R.B. Halbesleben\*

Division of Management, Michael F. Price College of Business, University of Oklahoma, 206 Adams Hall, 307 W. Brooks, Norman, OK 73019, USA

# M. Ronald Buckley

Division of Management, Michael F. Price College of Business, University of Oklahoma, 206 Adams Hall, 307 W. Brooks, Norman, OK 73019, USA

Received 3 January 2004; received in revised form 12 June 2004; accepted 16 June 2004 Available online 14 July 2004

Burnout is a psychological response to work stress that is characterized by emotional exhaustion, depersonalization, and reduced feelings of personal accomplishment. In this paper, we review the burnout literature from 1993 to present, identifying important trends that have characterized the literature. We focus our attention on theoretical models that explain the process of burnout, the measurement of burnout, means of reducing burnout, and directions for the future of burnout research.

© 2004 Elsevier Inc. All rights reserved.

Over the past 30 years, interest in burnout, from academics and managers alike, has increased dramatically as we have begun to understand the significant negative impact it has on employees. Our goal in this paper is to review the most recent literature concerning the burnout construct, specifically, the published literature from 1993 to the present. Burnout, as a form of work-related strain, is the result of a significant accumulation of work-related stress. Maslach (1982) defined burnout as "a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do 'people work' of some kind' (p. 3).

As noted in Maslach's (1982) definition, burnout is characterized by three primary symptoms. Specifically, emotional exhaustion refers to a depletion of emotional resources. Employees who are emotionally exhausted typically feel as though they lack adaptive resources and cannot give any more to their job. The energy that they once had to devote to their work is now depleted, leaving them without the resources to perform their work. Depersonalization (also known as cynicism and disengagement in the literature) often occurs in response to the aforementioned emotional exhaustion and describes a process whereby employees

<sup>\*</sup> Corresponding author. Tel.: +1 405 325 5733; fax: +1 405 325 7688.

detach from their job and begin to develop callous or uncaring attitudes toward their job, their performance, and those associated with the job (e.g., clients, coworkers, etc.). Reduced personal accomplishment (also known as personal efficacy in the literature) refers to diminished perceptions of ability on the job; employees perceive that they cannot perform as well at their job as they once could.

In 1990, the first European Conference on Professional Burnout was held in Krakow, Poland. From that conference, a seminal book emerged (Schaufeli, Maslach & Marek, 1993a) that served as a comprehensive synopsis of the state of the burnout literature up to that point and suggested myriad directions for subsequent research concerning the burnout construct. Since the publication of that book, burnout has been the topic of thousands of published research studies and dozens of books. A search on Psycinfo using the keyword "burnout" from 1993 to the time of this writing yielded 1784 articles, books, and dissertations; a similar search on Business Source Elite yielded nearly 200 academic hits. Clearly, burnout continues to be a topic that piques the interest of researchers and practitioners.

Particularly important to the advancement of the study of burnout was the concluding chapter from the book, where Schaufeli, Maslach and Marek (1993b) summarized the current state of the study of burnout and suggested a number of important questions left to address in order to better understand burnout. Their suggestions set the stage for the burnout literature through the following decade. This purpose of this review is to illuminate the advancement in both the theoretical and empirical research on burnout that has occurred since this influential book was published.

Therefore, we have structured this review around the suggestions for future research provided by Schaufeli et al. (1993b). In light of the vastness of the burnout literature, we will not attempt to comprehensively review each article that has been published on the topic over the last ten years (cf., Schaufeli & Enzmann, 1998); instead, we discuss what we believe are the important trends that have characterized the research concerning burnout over the past decade. We will begin by summarizing the "what we have" section of Schaufeli et al. (1993b) chapter, as it provides the starting point for understanding what has occurred in the study of burnout. We then discuss the progress in the literature in addressing the needs suggested by Schaufeli et al. (1993b) in their section on "what we need." We conclude the review with suggestions for future research and our observations concerning the emerging directions that might drive the burnout literature for the next decade and beyond.

#### "What We Have"

As noted, Schaufeli et al. (1993b) began their chapter with a brief synopsis of what was known about burnout as a result of the research published in their book. They suggested, for example, that burnout was a relevant construct that would likely increase in relevance as demands on workers increased. They noted the significant linear increase in academic research on burnout since its identification as a construct of interest to organizational researchers.

They also suggested that we had a concept that had not yet been fully integrated with other lines of research. At the time, there was not a dominant theoretical paradigm within the research stream; instead burnout researchers borrowed heavily from general psychological

concepts such as stress (Cox, Kuk & Leiter, 1993; Hobfoll, 1988; Hobfoll & Freedy, 1993), social comparison (Buunk & Schaufeli, 1993), action theory (Burisch, 1993), existential psychology (Pines, 1993), and self-efficacy (Cherniss, 1993). As we will note, much of the subsequent research concerning burnout has sought to develop more refined theories of burnout that typically integrate it with these concepts while attempting to position burnout as a distinct construct.

Schaufeli, Enzmann and Girault (1993) also claimed that we had a common language (in terms of measurement) and occupational context for the study of burnout. The common language came in the form of the Maslach Burnout Inventory (MBI), which was (and has remained) the dominant measure of burnout. They noted that the original definition of burnout and most of the initial empirical work in burnout was limited to those in human service roles, particularly teachers, nurses and social workers. While we will return to the issue of the MBI as the common language of burnout, it is interesting to note a clear change in terms of occupational context. To expand the occupational domain underlying the study of burnout, Leiter and Schaufeli (1996) conducted a study of nearly 4000 participants in various occupations in the health care industry (clerical and maintenance staff, technical workers, nurses, and managers), finding support for the consistency of the MBI dimensions (and thus, the experience of burnout as conceptualized by the MBI) across these occupations. Moreover, they found consistency between the MBI and open-ended questions related to their experiences at work. This, along with a vast number of other studies suggesting that burnout is experienced by individuals in many non-service occupations, has led to general agreement that the study of burnout should not be limited those who perform service work.

To provide direction for burnout researchers, Schaufeli et al. (1993b) concluded their synopsis with research agendas that would help to provide some answers to the prevailing questions in the burnout literature. In the following sections, we discuss those agendas as well as how researchers have attempted to address their research suggestions since the book's publication.

#### **Models of Burnout**

The first agenda proposed by Schaufeli et al. (1993b) was an increase in theory-driven studies of burnout. As part of this suggestion, they implied that a comprehensive theory of burnout had yet to be developed. Indeed, a common emphasis across chapters was the recognition of the need for theoretical models of burnout that would help integrate the research concerning burnout. Since that time, there has been much greater attention given to both the development and testing of models of burnout (e.g., Cordes & Dougherty, 1993; Lee & Ashforth, 1993; Leiter, 1993; Maslach, 1993). In this section we will briefly review two of the dominant burnout models, including their theoretical development, underlying assumptions, and research support.

#### The Conservation of Resources Model

The conservation of resources (COR; Hobfoll, 1988, 1989, 1998, 2001; Hobfoll & Freedy, 1993) model of burnout posits that stress and burnout occur when individuals perceive

a threat to that which they value (resources). That threat may come from work-related demands, the loss of work-related resources (such as unemployment), or the insufficient return of resources following an investment of resources (for example, if an employee spends a great deal of time assisting a coworker without any return favor from that coworker). The initial threat to resources is seen as a stressor; however, the continued loss or threat to resources, particularly after a great deal of resource investment in work, is said to lead to burnout (Hobfoll, 2001). In this way, the COR model extends beyond the notion of stress to help understand how chronic stress develops into burnout.

Key to the COR model is the notion that job demands and job resources can differentially predict burnout and its individual dimensions (Leiter, 1993; see also Leiter, 1991). This is, in part, due to the different psychological experiences of loss and gain. Generally, people are more concerned about avoiding loss than they are with achieving gains. Consequently, demands are more likely to lead to burnout than resources are to protect against it (Hobfoll & Freedy, 1993). Lee and Ashforth's (1996) meta-analysis of burnout confirms this notion, as they found variables considered job demands (e.g., work overload) more strongly related to the emotional exhaustion component of burnout than resource variables (e.g., social support). Moreover, they found that demand variables tended to be less related to the depersonalization and personal accomplishment components of burnout, while resource variables were somewhat more strongly related to those two components.

A wide variety of other research studies have utilized the COR framework and found empirical support for the model (cf., Brotheridge & Lee, 2002). Recently, Halbesleben and Bowler (in press) utilized the COR model to extend the relationship between burnout and job performance, particularly in terms of extra-role behaviors at work. They argue that the link between burnout and job performance is best understood in terms of the investment in resources. They found that employees who were more exhausted demonstrated lower in-role job performance but were more likely to engage in organizational citizenship behaviors. This suggests that, while the employees were investing fewer resources in the actual job performance and distancing themselves from the demands that caused the burnout (Freedy, Shaw, Jerrell & Masters, 1992), they were instead targeting their resources toward the benefit of others. Halbesleben and Bowler (in press) posit that such a strategy may be a logical attempt to increase social support in order to lower burnout.

The work of Halbesleben and Bowler (in press) highlights an important strength of the COR model. Through its specification of the processes underlying the investment of resources (e.g., when resources become depleted, employees are more careful regarding the investment of those resources), the COR model helps us to understand how burnout leads to such consequences as lower job performance and organizational commitment. While more empirical work is needed to test these processes in the context of burnout, Hobfoll's (1988) compelling theory provides a streamlined model that can account for both the causes and consequences of burnout.

# The Job Demands—Resources Model

Building upon the COR model to develop the job demands—resources (JD-R) model of burnout, Demerouti, Bakker, Nachreiner and Schaufeli (2001) proposed that burnout is the result of two categories of work characteristics. Job demands are those aspects of the job that

require effort, and as a result are associated with psychological costs (such as burnout). On the other hand, job resources are characteristics of the job that assist in achieving work goals, diminish the demands of the job, or lead to personal growth. Moreover, they predict that job demands predict the emotional exhaustion component of burnout while job resources predict the depersonalization component of burnout (they termed it disengagement, to reflect a more general process of pulling away from one's job).

It is important to note that the JD-R model differs from the demands-control model (DCM) of stress put forth by Karasek (1979). Karasek's model predicts that the demands faced by an employee interact with the perceived control that the employee has over his or her job. One of the concerns with the DCM has been the proposed interaction between job demands and control. Researchers have noted consistent difficulty in demonstrating empirical support for this interaction in predicting burnout (Carayon, 1993; Jones & Fletcher, 1996).

In contrast, the JD-R model considers the additive main effects of demands and resources in predicting burnout, rather than relying upon the interaction of these factors. Moreover, Demerouti et al. (2001) suggest that demands and resources lead to different component outcomes of burnout. Specifically, they predict that demands are associated with exhaustion, while resources are inversely associated with depersonalization (disengagement).

Despite its relatively recent development as a burnout model, the JD-R model has seen initial empirical support. For example, Schaufeli and Bakker (2004), with a sample of nearly 1700 workers in four different occupational groups, found support for the notion that disengagement was related to job resources. However, they found that both demands and resources were related to exhaustion. Bakker, Demerouti and Verbeke (2004) found a similar effect in their study of job performance, suggesting that the differential main effects predictions of the JD-R may need to be reconsidered and refined. As Schaufeli and Bakker (2004) noted, demands and resources are unlikely to be independent. Demands can be characterized as those things that tap into resources (cf., Hobfoll, 1988) and moreover, resources are typically considered the tools we use to address demands. As such, it may be difficult to find continued empirical support for a model that completely differentiates them in predicting outcomes.

#### **Correlates of Burnout**

In addition to specific process models of burnout, researchers have continued to focus on relationships between burnout and its correlates. This research has contributed to our understanding concerning the general causes and consequences of burnout at the individual, interpersonal, and organizational levels, answering the call for such research made by Schaufeli et al. (1993b). Specifically, a larger number of studies have incorporated their suggestion that researchers treat burnout as a mediating state between its causes and consequences (e.g., Siegall & McDonald, 2004).

During the last decade, much of the research on the antecedents of burnout has continued to focus on work context/environmental factors as the proximal cause of burnout. As a full review of studies of the antecedents of burnout would be beyond the scope of this article (see Schaufeli & Enzmann, 1998 for a comprehensive empirical review of antecedents of burnout), we will instead focus what we see as the two major trends that have emerged

from that literature: the consideration of individual attributions in moderating the work environment–burnout relationship and the role that social exchange relationships may play in the development of burnout.

# Personality Moderators

While the role of the individual has been recognized in the general stress literature for quite some time (e.g., Lazarus & Folkman, 1984), much of the early burnout research focused nearly exclusively on the role of environmental factors in the prediction of burnout. An emerging trend over the past decade has been a growing literature examining the interaction of environmental and personal factors in the burnout process (Burisch, 2002; Jansen, Kerkstra, Abu-Saad & van der Zee, 1996). Representative of this research has been Bakker and Schaufeli's (Bakker, Demerouti & Schaufeli, 2003; Bakker & Schaufeli, 2000; Bakker, Schaufeli, Sixma & Bosveld, 2001) work on the social contagion of burnout. In studying the factors that influence how burnout might "pass" from one employee to another within an organization, they have found that susceptibility to emotional stimuli was an important moderator between work environment factors (other employees' burnout and communication about work problems) and burnout among teachers and general practice physicians.

Other personality variables have also been studied as potential individual difference variables influencing the environment–burnout relationship (e.g., Semmer, 1996; Witt, Andrews & Carlson, 2004). Zellars, Perrewé and Hochwarter (2000) investigated the role of personality on burnout, after controlling for role stressors, among health care workers. They found that the "Big Five" personality factors predicted components of burnout beyond the effects of role stressors. Neuroticism was associated with higher emotional exhaustion; extraversion, openness to experience, and agreeableness were inversely related to depersonalization; and extraversion and openness were inversely associated with diminished personal accomplishment. This study suggests that the use of dominant personality typologies may help us develop a more comprehensive understanding of individual reactions to burnout, particularly their moderating role in the relationship between environmental stressors and burnout.

Basing their ideas on early models of person–environment fit in the context of stress (e.g., French, Rodgers & Cobb, 1974), Maslach and Leiter (1997; Leiter & Maslach, 2001, 2004) proposed that the greater the mismatch between an employee and his or her job, the greater the likelihood of burnout. To determine fit, Maslach and Leiter propose six dimensions of work life that influence the fit between a person and his or her job; they include workload, control, reward, community, fairness, and values. Taken together, the research of Maslach and Leiter suggests that despite common underlying organizational stressors, people react differently to burnout because of their personal attributes (such as personality and attribution style) that facilitate their fit (more or less) with the environment.

While there has been a paucity of research specifically testing Maslach and Leiter's model, initial research results have yielded support for the tenets of the model. Research has also investigated the manner in which the six fit factors may interact and the manner in which people differentially weight the six factors in thinking about their own work life (Maslach, Schaufeli & Leiter, 2001). One particularly noteworthy study was conducted by Barnett, Gareis, and Brennan (1999), who found that work hours by themselves were not necessarily a direct cause of burnout. Instead, the relationship between work hours

and burnout is mediated by an employee's preference for certain working hours and the relationship between the employee's and their spouse's working hours. This finding suggests that working a large number of hours may not necessarily lead to burnout but that burnout is contingent upon individual difference factors, such as the fit between working hours and salient family concerns.

These studies also underscore the distinction between stress and burnout and the role that burnout plays as an outcome of stress. Specifically, they suggest that stress will lead to burnout to the extent that personality factors moderate that relationship. While there is a great deal more work to be done to understand the interactive role of person and environment in predicting burnout, particularly as we consider how they can be integrated with the notions of demands and resources, these studies provide a solid foundation from which to build.

#### Social Exchange Relationships

A second major trend in the study of burnout is the investigation of the role of social exchange relationships in the burnout process. This research has developed, in part, from the chapter of Buunk and Schaufeli (1993), in which they suggested that feelings of inequity in social exchange relationships may be associated with burnout. Specifically, they noted that caregivers often feel as though they invest more into relationships with clients than is reciprocated by the clients. Schaufeli, van Dierendonck and van Gorp (1996) then expanded this conceptualization, including the exchange relationship with the organization as an important factor in burnout. The found support for their dual-level (interpersonal and organizational) model in two samples of nurses. Since that time, a series of studies have found consistent support for the notion that inequity in social exchange is associated with burnout (Bakker, Schaufeli, Sixma, Bosveld & van Dierendonck, 2000; Taris, Peeters, LeBlanc, Schreurs & Schaufeli, 2001; Truchot & Deregard, 2001; Van Dierendonck, Schaufeli & Buunk, 2001).

This trend in the burnout literature has also led to the emergence of investigations concerned with the impact of social comparison information on burnout (cf., Brenninkmeijer, van Yperen & Buunk, 2001; Buunk, Ybema, Gibbons & Ipenburg, 2001; Van der Zee, Bakker & Buunk, 2001). These studies suggest that the social cognitive processes underlying stress may influence the relationship between stress and burnout. For example, when I compare myself to my peers, and see that they are being paid more and/or being treated better than I, the comparison may serve as an additional stressor. In this case, the personal relationship I have developed at work serves as a demand rather than a resource, particularly when considering my interpretation of those relationships. This has extended our thinking beyond the typical research that investigates elements of the working environment without adequately considering the manner in which individuals react to and perceive that environment.

However, it also suggests that burnout researchers attempt further integration of the notion of burnout with more general theory and research on procedural and distributive justice in organizations, as it may yield a more fruitful understanding of the nature of organization-level social exchange. Particularly relevant would be to understand the role of justice/injustice as a resource or demand. Justice research may also serve to help further

distinguish stress from burnout. Where some forms of injustice (e.g., distributive injustice) may serve as an acute stressor, other types (e.g., procedural injustice) may serve as a continual stressor that triggers burnout in workers (Tepper, 2001).

# Job Performance and Burnout

In a manner similar to the study of the antecedents of burnout, research has been conducted over the past ten years concerning a wide variety of outcomes associated with burnout, including job attitudes such as commitment and satisfaction (Moore, 2000; Singh, Goolsby & Rhoads, 1994), turnover (and turnover intention; cf., Drake & Yadama, 1996; Geurts, Schaufeli & De Jonge, 1998; Koeske & Koeske, 1993) and physiological symptoms (e.g., Shirom, Westman, Shamai & Carel, 1997). These studies have underscored the relevance of burnout in terms of tangible, negative consequences for employees and organizations.

One of the most commonly held and intuitively appealing negative consequences of burnout is a reduction in job performance (Maslach, 1982). However, as noted by Wright and Bonett (1997), there has been scant empirical work concerned with the relationship between burnout and job performance. To fill this void, they conducted a longitudinal study that yielded a negative relationship between only one component of burnout (emotional exhaustion) and job performance. As a follow-up, Wright and Cropanzano (1998) conducted a one-year longitudinal study that investigated the relationship between emotional exhaustion and supervisory ratings of job performance. They reported a significant inverse relationship between emotional exhaustion and job performance, after accounting for the potential influence of negative and positive affectivity.

Keijsers, Schaufeli, Le Blanc, Zwerts and Miranda (1995) found that burnout had differential effects on performance depending on how one operationalized performance. When asked their subjective assessment of individual performance, burnout was negatively related to Dutch nurses' perceptions of their performance. However, when compared to their "objective" performance (as measured by their performance appraisals), burnout was actually positively related to job performance. This brings forth an interesting paradox: nurses who are burned out believe they are not performing as well, when in fact others observe higher performance levels. Parker and Kulik (1995) also examined the relationship between burnout and both self- and supervisor-rated job performance in a sample of nurses. As with the previous studies, they found a relationship between only the emotional exhaustion component of burnout and job performance (both self- and supervisor-rated).

When considering the influence of extra-role performance behavior, Cropanzano, Rupp and Byrne (2003) predicted that the emotional exhaustion component of burnout would be negatively related to in-role performance, organizational citizenship behaviors (OCB) directed to the organization, and OCB directed at one's supervisor. Moreover, they expected that relationship to be at least partially mediated by organizational commitment, linking the commitment relationship to social exchange theory (Blau, 1964). In two studies, they found general support for their predictions, with one primary exception: the relationship between exhaustion and OCB directed at one's supervisor.

This important line of research has been quickly expanding, yielding a better understanding of the tangible consequences of burnout for organizations. Research that links the job performance/burnout relationship to other organizational outcomes (e.g., client satisfaction,

see Leiter, Harvie & Frizzell, 1998) will be particularly relevant in disentangling the complex and important role that burnout plays in the performance of individuals and organizations. Moreover, as researchers continue to understand the role that job performance plays in more general theories of burnout (e.g., Halbesleben & Bowler, in press) our understanding of the manner in which burnout influences job performance will become more apparent.

#### The Measurement of Burnout

Throughout the last decade of burnout literature, studies concerning the measurement of burnout have remained prominent, addressing Schaufeli et al.'s (1993b) call for more research on the validity of the MBI and the development of additional measures of burnout. In their chapter reviewing the methodological issues surrounding burnout, Schaufeli, Enzmann, et al. (1993) summarized the state of burnout measurement issues and provided suggestions for burnout researchers. Paramount among those suggestions was a more comprehensive investigation of the psychometric properties of the burnout measures available at the time (primarily the Maslach Burnout Inventory), the development of quality alternative measures of burnout, and the careful study of the conceptualization of burnout in crosscultural settings. The advances in the measurement of burnout, since the aforementioned chapter, have been important in shaping our thinking about both the process of and the generalizability of burnout.

# The Maslach Burnout Inventory

The modal measurement inventory for burnout continues to be the Maslach Burnout Inventory (MBI; Maslach, Jackson & Leiter, 1996). This inventory was first developed in the early 1980s as an attempt to facilitate consistency in the measurement of burnout (Maslach, 1993; Maslach & Jackson, 1981). In line with early definitions and development of burnout research, the MBI was originally designed to assess burnout among those workers who had a direct relationship with clients. It has since undergone revision and includes a scale designed to measure burnout in non-human-services fields (the MBI-General Survey; Schaufeli, Leiter, Maslach & Jackson, 1996) and a scale designed to measure burnout in educational settings (the MBI-Educator Survey). In all of the revised scales, the MBI is designed to assess burnout utilizing three subscales that are reflective of Maslach (1982, 1993) original conceptualization of burnout (emotional exhaustion, depersonalization, and reduced personal accomplishment).

Over the past decade, all versions of the MBI have experienced significant attention with regard to their psychometric properties. The initial thrust of psychometric research was concerned with the factor structure of the MBI. Support has been reported for the three-factor structure (with correlated factors) across occupations, nationalities, and versions of the MBI (cf., Lee & Ashforth, 1990; Schaufeli, Bakker, Hoogduin, Schaap & Kladler, 2001; Schutte, Toppinen, Kalimo & Schaufeli, 2000; Taris, Schreuers & Schaufeli, 1999).

However, other researchers have suggested that a two-factor model that includes only emotional exhaustion and depersonalization might be more appropriate, based on both methodological and conceptual arguments (e.g., Kalliath, 2000; Shirom, 2003). This has occurred, in part, due to the manner in which the personal accomplishment burnout factor is differentially related to a number of basic organizational outcomes (e.g., job satisfaction and organizational commitment; Lee & Ashforth, 1996). While emotional exhaustion and cynicism have generally yielded consistent relationships with such attitudinal outcomes, personal accomplishment has had far less consistent empirical relationships with the same outcomes. Others have argued that personal accomplishment is better conceptualized as a personality factor rather than a symptom of burnout (e.g., Cordes & Dougherty, 1993). More research, both theoretical and empirical, is needed to sort out the relationship of personal accomplishment with the other components of burnout (Schaufeli, in press).

Links to cross-cultural research. Schaufeli et al. (1993b) noted that there was a need for more cross-national research on burnout. Some progress has been made on this front, particularly when considering the measurement properties of the MBI. While originally developed for American samples, over the last decade the MBI has been translated and validated utilizing samples from a number of other countries, facilitating an increase in cross-cultural burnout research (Schutte et al., 2000).

This increase in cross-cultural burnout research has revealed a number of interesting trends. First, in terms of the actual measurement of burnout, the psychometric properties of the MBI, including the three-factor structure, have remained fairly consistent across language translations (Hwang, Scherer & Ainina, 2003). Second, there is a pattern of higher levels of burnout among North American samples than European samples. Maslach et al. (2001) provide a number of potential explanations, including differences in survey responding styles (e.g., North Americans may be more likely to respond using extreme points of scales), social acceptance of public expression of burnout, or differences in achievement orientation. They do note that the actual translation of the scale seems to be an unlikely cause of these differences, as English-speaking workers from European countries (England and Ireland) have typically reported lower burnout scores than French-speaking Canadians (Maslach et al., 2001; Schaufeli & Janczur, 1994). Moreover, respondents in Japan and Taiwan have reported even higher levels of burnout than those experienced by North Americans (Golembiewski, Boudreau, Munzenrider & Luo, 1996); further suggesting that translation was not the only factor. Maslach et al. (2001) also note that cross-cultural burnout research is still relatively new and is typically conducted on non-representative samples; as such, interpretations about national or cultural differences are somewhat premature until a more comprehensive research base that directly addresses this issue is developed. Along these lines, cross-cultural research that addresses more comprehensive issues, including the generalizability of the theories of burnout in other cultures, will be particularly valuable as well seek to assess the extent to which burnout impacts workers worldwide.

#### Alternatives to the MBI

Despite its overwhelming popularity among burnout researchers, the MBI is not without potential measurement concerns. For example, Demerouti et al. (2001) argued that there is a critical psychometric limitation of the MBI. They noted that all of the items within the three subscales are phrased in the same direction; the exhaustion and depersonalization

scales are all worded negatively and the personal accomplishment scale is worded positively. They argued that this could result in response biases and might have yielded an artificial clustering of factors due to the positively and negatively worded scales (Bouman, te Brake & Hoogstraten, 2002; Demerouti & Nachreiner, 1996; Lee & Ashforth, 1990).

A relatively new measure, the Oldenburg Burnout Inventory (OLBI; Demerouti, Bakker, Vardakou & Kantas, 2003), was developed to mitigate the potential wording biases of the MBI. The OLBI is based on a similar conceptual model to that of the MBI; however, it features only two scales, exhaustion and disengagement. The most current version of the OLBI features questions that have balanced positive and negative wording (Bakker et al., 2004). Furthermore, whereas the MBI focuses only on affective components of emotional exhaustion, the OLBI features questions designed to assess cognitive and physical components of exhaustion, consistent with past suggestions in the burnout literature (e.g., Shinn, 1982). Demerouti et al. (2003) have argued that the OLBI demonstrates convergent validity when compared to the MBI, while Demerouti et al. (2001) confirmed the two-factor structure of the OLBI in a sample that included human service, industrial, and transportation jobs.

However, more evidence of the validity of the OLBI is required. At this point, it is premature to suggest that it supplant the MBI. For example, while Halbesleben (2003) found some support for the factor structure and convergent validity of the OLBI, he noted that the fit statistics associated with factor models in his and other studies has been somewhat lower than regularly accepted levels. Pending further investigation of its psychometric properties, the OLBI may provide an alternative to the MBI that not only addresses the wording issues of the MBI but also expands the domain of burnout beyond the affective component of exhaustion.

In their book about burnout, Pines and Aronson (1988) presented a measure of burnout they called the Burnout Measure. This measure was designed around a single dimension of burnout, exhaustion. The items are written in a general fashion, such that they may be applied to any occupational group. While it has been suggested that such a measure would be useful from a diagnostic perspective (Enzmann, Schaufeli, Janssen & Rozenman, 1998), investigations of this measure over the past decade have identified a number of problems with the resulting factor structure and its theoretical underpinnings (Enzmann et al., 1998; Schaufeli & van Dierendonck, 1993). As such, we agree with the suggestion that the Burnout Measure not be used as a distinctive measure of burnout without significant modification and research attention.

# The Reduction of Burnout

Despite the pervasive nature of burnout as an organizational problem, there has been relatively little research dedicated to presenting and, particularly, evaluating interventions designed to reduce burnout since such a need was noted by Schaufeli et al. (1993b). There have been two primary approaches to intervention programs: trying to change individual employees and trying to change the organization (Ross & Altmaier, 1994; Schaufeli & Buunk, 2002).

Programs that seek to change individuals have been more prominent both in research and in practice, perhaps because of a belief that burnout is due to personal issues or an assumption that it is easier to change individuals than to change an organization (Maslach & Goldberg, 1998). These programs generally seek to develop coping skills in an individual in order to assist in dealing with the stress that has resulted in burnout.

The evaluation of these programs has been mixed. These programs occasionally lead to reductions in emotional exhaustion, but rarely have these programs had any effect on depersonalization or perceptions of personal accomplishment (cf., Freedy & Hobfoll, 1994). While one could argue that reduction of emotional exhaustion should lead to reductions in depersonalization and increase perceptions of personal accomplishment, a more promising approach to the reduction of burnout has been to attempt to make changes to the environment in which the employees work. A number of programs of this nature have been presented, with some accompanying evaluation research evidence supporting their effectiveness (Van der Klink, Blonk, Schene & van Dijk, 2001).

Other programs have focused on unmet expectations and inequity in social exchange as potential causes for burnout. Van Dierendonck, Schaufeli and Buunk (1998) have developed a group-based intervention program that focused on reducing burnout by adjusting employees' goals and expectations to match the actual work environment, with evidence that it was effective in reducing burnout. Still other programs have focused on social support as a key to intervention, particularly in educational settings (e.g., Burke & Richardson, 2000; Vandenberghe & Huberman, 1999), with some evidence of their effectiveness. In all of these cases, the effort to reduce burnout was targeted at specific organizational stressors that were believed to be causing the burnout. This leads us to conclude that burnout can be reduced, but there is a need to develop appropriate (and novel) programs for its reduction with accompanying empirical evaluation evidence.

#### **Future Directions**

As the previous review suggests, there has certainly been considerable progress in the burnout literature since Schaufeli et al. (1993a) book. However, a number of the needs they specified have not been addressed and there are a number of additional important avenues left to be explored by researchers. In this section, we outline three key directions for future research with the intention of guiding future research in burnout.

# Burnout as a Psychiatric Disorder

One important direction for the future of burnout research is to address an emerging issue within the burnout literature, that is, the status of burnout as a psychiatric disorder. The initial thrust of burnout research from the social psychological perspective focused on burnout as a continuum. However, Schaufeli (in press), drawing from the early clinical work of Freudenberger (1974), positions burnout as a psychiatric disorder (where one is either "burned out" or not). He also suggests that in some countries burnout is seen as a significant issue in terms of occupational medicine. Indeed, he argues that much of the burnout research is biased toward healthy, working individuals, and in effect ignores the

population of individuals who are so burned out that they are no longer available for study. This is a rather alarming proposition as it implies that much of our research is range restricted and may provide little insight into the true nature of burnout.

Following this thinking, Schaufeli et al. (2001) have proposed clinical cutoff points for MBI for the use of clinical diagnostic purposes in the Netherlands. Their cutoff scores were developed by comparing MBI scores of participants to the results of a clinical evaluation. However, they caution that cutoff scores are needed for other cultures, too, as the scores they have developed may be culture-specific (cf., Schaufeli & van Dierendonck, 1995).

The development of cutoff scores for diagnostic purposes would help to address a need in the burnout literature specified by Schaufeli et al. (1993b), namely, the need for more clear base rate information on burnout. They note that we do not yet know the extent to which burnout is truly a social problem, because we have been unable to determine how many people are truly burned out. Clearly, we will be unable to determine base rates until we are able to determine at what level the "counting" of burnout cases begins.

The notion of cutoff scores also addresses a more general concern in the burnout literature. While burnout researchers have adamantly argued that burnout is indeed an extension of the construct of stress, treating burnout as a continuum may blur the distinction between stress and burnout, particularly at lower levels of burnout. The conceptualization of burnout in terms of cutoffs highlights the extreme nature of burnout as a distinct consequence of work-related stress.

Finally, the notion of cutoff scores highlights a potential gap in the current theories regarding burnout. While the COR and JD-R models help to understand the causes and course of burnout, they do little to specify its more refined dynamics. For example, neither model is clear regarding the specific manner in which stressors (demands) accumulate to lead to burnout (e.g., additively, multiplicatively). Moreover, they do not offer clear predictions regarding the determination of a cutoff point for burnout. As such, we are reliant on solely empirically based determination of cutoffs, with little underlying theory to support the resultant scores. As we work toward developing cutoffs for burnout, we must also consider how those cutoffs fit into our theoretical explication regarding the experience of burnout.

#### The Role of Social Support

Over the past decade, there has been a deluge of research on the role that social support plays in the etiology of burnout. Studies have been conducted investigating the effect of support from supervisors, coworkers, friends and family, organizations, unions, and others. While many empirical studies have found statistically significant relationships with social support and burnout (Baruch-Feldman, Brondolo, Ben-Dayan & Schwarz, 2002; Carlson & Perrewé, 1999; Schaufeli & Greenglass, 2001), these results have been somewhat inconsistent (Burke & Greenglass, 1996; Koniarek & Dudek, 1996).

The COR and JD-R models of burnout highlight the potentially important role of social support as a resource that can reduce the likelihood of burnout. Moreover, the COR model provides support for the notion that different sources of social support may be more or less effective in reducing burnout. For example, because coworkers and supervisors are in a better position to provide instrumental support that helps to address stressors that lead to

burnout, one would expect that those work-related sources of social support would have a stronger relationship with burnout.

Along these lines, research is needed, both empirical (e.g., meta-analysis) and particularly theoretical, that delineates the role of work-related and family related support (cf., Montgomery, Peeters, Schaufeli & Den Ouden, 2003). One manner in which to study the independent contribution of work- and family-based social support would be to study a rather unique segment of the working population: dual career couples that work in the same occupation and/or organization. One would expect that spouses who work together would be able to provide not only the emotional support that appears to have some link in the buffering of burnout, but also the instrumental support, associated with doing the same job or working at the same place, that is more strongly associated with burnout reduction. Such research would contribute not only to our understanding of social support, but also to a more broad understanding of burnout in terms of resources. Moreover, it would help to delineate the specific dynamics underlying work and family life as they influence burnout. Finally, it might suggest that the conservation of resources model needs to more carefully account for different types of resources and their differential effects on burnout processes.

The COR model also helps to understand the circumstances under which social support is counterproductive in burnout. Hobfoll (1998) noted that when social support merely masks the real stressors at work, it may simply delay the inevitable, potentially making the stressors worse by taking up time that could have been used to address them. Moreover, Deelstra, Peeters, Schaufeli, Stroebe, Zijlstra and van Doornen (2003) found that social support can serve as a potential threat to an employee's self-esteem, if he or she feels as though they must consistently rely upon others to deal with their work-related stressors (see also Halbesleben & Buckley, in press).

Finally, we know too little about the developmental processes underlying social support that is offered in response to burnout. Relevant to this notion is Kaniasty and Norris' (1993a, 1993b; Norris & Kaniasty, 1996) social support deterioration deterrence model. Their model, which was developed in the context of reactions to natural disasters, suggests that when a significant negative event occurs, significant support systems are activated in order to address the negative situation, but because those resources are finite, they necessarily dissipate over time, resulting in less support for the future. Consider the example of an employee who loses his or her job. While friends and family may initially rally to support the individual, long-term unemployment may lead to decreases in support.

In terms of burnout, if someone utilizes social support (e.g., by talking with coworkers about the situation or asking a supervisor to ease demands), the social support deterioration deterrence model suggests that others may be willing to provide support for a time, but back off on that support if the burnout were to continue indefinitely. This important temporal component of social support has not been adequately addressed in the burnout literature, but would help to understand when and under what circumstances support resources are provided and maintained.

# Alternative Means of Reducing Burnout

As we have developed models of burnout and an improved understanding of the correlates of burnout, these should assist researchers as they seek to develop better intervention strategies to help reduce burnout. Both the COR and JD-R models of burnout suggest that to the extent that we can reduce demands and supplement resources for workers, burnout should be reduced. Translating these ideas to intervention suggests that organizations should seek to address the demands faced and the resources available to employees. We have noted that providing social support resources, under the right circumstances (Deelstra et al., 2003), can help to reduce burnout. However, more work is needed on the specific manner in which to provide resources to employees in such a way that they address demands faced at work.

In terms of demands, one of the common findings in the burnout literature has been that unrealistic expectations about the job can lead to burnout, in part because they highlight the misfit between an employee and his or her organization (Lee & Ashforth, 1996; Maslach & Leiter, 1997; Schaufeli & Enzmann, 1998). While they have never been considered in the context of burnout prevention, human resource managers have used realistic job previews (RJP; e.g., Wanous, 1992) and expectation lowering procedures (ELP; Buckley, Fedor, Veres, Wiese & Carraher, 1998) to manage recruitment, increase organizational commitment, and reduce turnover (Wanous, 1992). RJP and ELP procedures could also be effective tools in reducing burnout to the extent that they adjust newcomer expectations so that they are more consistent with what they will subsequently experience on the job. If an organization's RJP or ELP assists potential employees in determining how well their expectations fit with organizational reality, it is less likely that employees' expectations will not be met. This should lead to lower burnout, which in turn leads to lower turnover. This type of program suggests that one way to reduce burnout is through appropriate human resource management strategies.

One of the challenges in developing burnout interventions is the tension between providing adequate specificity to be effective within a given organization and providing adequate generalizability to be readily applied to a wide variety of organizational problems. One suggestion is to look to general models of organizational change and their correspondent strategies as they may suggest a more general strategy for the development of organization-specific interventions. A fruitful avenue in this exploration would be to consider action research approaches (McNiff, 2000; Reason & Bradbury, 2001). In action research, the members of the organization engage in careful self-reflection regarding the concerns of their specific organization. Once they have determined the nature and causes of those concerns, they work collaboratively to develop and test potential solutions.

Recently, Osburn, Halbesleben and Mumford (2003) utilized the action research approach to address the high levels of burnout at a fire department on a military installation. Through observation, interviews, surveys, and focus groups, they were able to assist the department in understanding the specific causes of burnout in the department. They then worked with the department to develop interventions to address burnout. Among those were an exercise where the entire department worked together to rewrite the mission of the department; the exercise was intended to offer more structure to the department, provide an opportunity for collaboration between the workers and management, and develop social support. Osburn et al. (2003) also provided qualitative and quantitative one-year evaluation data, finding that the interventions were successful in reducing burnout (through significantly lower scores on the MBI). The key to their program was not the specific interventions that they utilized, but instead that they had developed a program that was tailored to the needs of the organization.

Of course, as was noted by Schaufeli et al. (1993b), we still need more evaluation research, and in particular longitudinal evaluation research, that can help to demonstrate the effectiveness of intervention strategies. While this concern exists in many areas of management research, it is particularly relevant to burnout as we seek to test the emerging models of burnout. Our continued reliance on cross-sectional designs has limited the evidence that can be offered to support theories of burnout and interventions designed to reduce the occurrence of burnout. Of course, this problem is exacerbated by the nature of burnout. If an employee is burned out, he or she may not be available for continued study and/or may not be interested in participating in research (a task that may simply add another stressor to his or her life).

#### Conclusion

Burnout has significant costs in terms of health and organizational consequences (International Labour Office, 1993). The increasing proportion of long-term disability claims filed by workers as a result of burnout have led to significant burdens for employees, employers and insurers worldwide (Maslach et al., 2001). We agree with Schaufeli et al. (1993b) and their conclusion in the summary of their seminal book, we have an important, relevant construct that is worthy of continued scrutiny. This review suggests that we have made significant strides in our understanding of the experience and consequences of burnout among workers.

However, there is a great deal more work that is yet to be done. As we have discussed, more work is needed regarding the conceptualization of burnout and its distinctiveness as an outcome of work-related stress. Moreover, more work is needed on the specific nature of resources, and in particular, the role of social support as a resource. Finally, much more work is needed to develop and evaluate programs to reduce burnout. It is our hope that we have provided some useful directions for the research on burnout for the next decade of research studies, facilitating the increase of "what we have" by addressing more of "what we need."

#### Acknowledgment

The authors gratefully acknowledge the suggestions of Michael Leiter, Wilmar Schaufeli, Evangelia Demerouti, Christina Maslach, Daniel Feldman, Jenn Becker, and Tony Wheeler in shaping this article.

#### References

- Bakker, A. B., Demerouti, E., & Scahufeli, W. B. 2003. The socially induced burnout model. In S. P. Shokov (Ed.), *Advances in psychology research:* Vol. 25. 13–30. New York: Nova Science Publishers.
- Bakker, A. B., Demerouti, E., & Verbeke, W. 2004. Using the job demands-resources model to predict burnout and performance. *Human Resource Management.*, 43: 83–104.
- Bakker, A. B., & Schaufeli, W. B. 2000. Burnout contagion processes among teachers. *Journal of Applied Social Psychology*, 30: 2289–2308.

- Bakker, A. B., Schaufeli, W. B., Sixma, H. J., & Bosveld, W. 2001. Burnout contagion among general practitioners. Journal of Social and Clinical Psychology, 20: 82–98.
- Bakker, A. B., Schaufeli, W. B., Sixma, H. J., 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.
- Barnett, R. C., Gareis, K. C., & Brennan, R. T. 1999. Fit as a mediator of the relationship between work hours and burnout. *Journal of Occupational Health Psychology*, 4: 307–317.
- Baruch-Feldman, C., Brondolo, E., Ben-Dayan, D., & Schwarz, J. 2002. Sources of social support and burnout, job satisfaction, and productivity. *Journal of Occupational Health Psychology*, 7: 84–93.
- Blau, P. 1964. Exchange and power in social life. New York: Wiley.
- Bouman, A. H., te Brake, H., & Hoogstraten, J. 2002. Significant effects due to rephrasing the Maslach Burnout Inventory's personal accomplishment items. *Psychological Reports*, 91: 825–826.
- Brenninkmeijer, V., van Yperen, N. W., & Buunk, B. P. 2001. I am not a better teacher, but others are doing worse: Burnout and perceptions of superiority among teachers. *Social Psychology of Education*, 4: 259–274.
- Brotheridge, C. M., & Lee, R. Y. 2002. Testing a conservation of resources model of the dynamics of emotional labor. *Journal of Occupational Health Psychology*, 7: 57–67.
- Buckley, M. R., Fedor, D. B., Veres, J. G., Wiese, D. S., & Carraher, S. M. 1998. Investigating newcomer expectations and job-related outcomes. *Journal of Applied Psychology*, 83: 452–461.
- Burisch, M. 1993. In search of theory: Some ruminations on the nature and etiology of burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*. Washington, DC: Taylor & Francis.
- Burisch, M. 2002. A longitudinal study of burnout: The relative importance of dispositions and experiences. Work & Stress, 16: 1–17.
- Burke, R. J., & Greenglass, E. 1996. Work stress, social support, psychological burnout and emotional and physical well-being among teachers. *Psychology, Health, & Medicine*, 1: 193–205.
- Burke, R. J., & Richardson, A. M. 2000. Psychological burnout in organizations. In R. T. Golembiewski (Ed.), Handbook of organizational behavior: 327–368. New York: Marcel Dekker.
- Buunk, B. P., & Schaufeli, W. B. 1993. Burnout: Perspective from social comparison theory. In W. B. Schaufeli,C. Maslach, & T. Marek (Eds.), Professional burnout: Recent developments in theory and research: 53–69.Washington, DC: Taylor & Francis.
- Buunk, B. P., Ybema, J. F., Gibbons, F. X., & Ipenburg, M. 2001. The affective consequences of social comparison as related to professional burnout and social comparison orientation. *European Journal of Social Psychology*, 31: 337–351.
- Carayon, P. 1993. A longitudinal test of Karasek's job strain model among office workers. Work & Stress, 7: 299–314.
- Carlson, D. S., & Perrewé, P. L. 1999. The role of social support in the stressor-strain relationship: An examination of work-family conflict. *Journal of Management*, 25: 513–540.
- Cherniss, C. 1993. Role of professional self-efficacy in the etiology and amelioration of burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research.* Washington, DC: Taylor & Francis.
- Cordes, C., & Dougherty, T. W. 1993. A review and an integration of research on job burnout. Academy of Management Review, 18: 621–656.
- Cox, T., Kuk, G., & Leiter, M. P. 1993. Burnout, health, work stress, and organizational healthiness. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*. Washington, DC: Taylor & Francis.
- 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.
- Deelstra, J. T., Peeters, M. C. W., Schaufeli, W. B., Stroebe, W., Zijlstra, F. R. H., & van Doornen, L. P. 2003. Receiving instrumental social support at work: When help is not wanted. *Journal of Applied Psychology*, 88: 324–331.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. 2001. The job demands-resources model of burnout. *Journal of Applied Psychology*, 86: 499–512.

- Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. 2003. The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *European Journal of Psychological Assessment*, 19: 12–23.
- Demerouti, E., & Nachreiner, F. 1996. Reliability and validity of the Maslach Burnout Inventory: A critical approach. Zeitschrift für Arbeitswissenschaft, 52: 82–89.
- Drake, B., & Yadama, G. N. 1996. A structural equation model of burnout and job exit among child protective services workers. Social Work Research, 20: 179–187.
- Enzmann, D., Schaufeli, W. B., Janssen, P., & Rozeman, A. 1998. Dimensionality and validity of the Burnout Measure. *Journal of Occupational & Organizational Psychology*, 71: 331–350.
- Freedy, J. R., & Hobfoll, S. E. 1994. Stress inoculation for reduction of burnout: A conservation of resources approach. *Anxiety, Stress, & Coping*, 6: 311–325.
- Freedy, J. R., Shaw, D. L., Jarrell, M. P., & Masters, C. R. 1992. Toward an understanding of the psychological impact of natural disasters: An application of the conservation of resources stress model. *Journal of Traumatic Stress*, 5: 441–454.
- French, J. R. P., Rodgers, W., & Cobb, S. 1974. Adjustment as person-environment fit. In G. V. Coelho, D. A. Hamburg, & J. E. Adams (Eds.), Coping and adaptation: 316–333. New York: Basic Books.
- Freudenberger, H. J. 1974. Staff burnout. Journal of Social Issues, 30: 159–165.
- Geurts, S., Schaufeli, W., & De Jonge, J. 1998. Burnout and intention to leave among mental health-care professionals: A social psychological approach. *Journal of Social and Clinical Psychology*, 17: 341–362.
- Golembiewski, R. T., Boudreau, R. A., Munzenrider, R. F., & Luo, H. 1996. *Global burnout: A world-wide pandemic explored by the phase model*. Greenwich, CT: JAI Press.
- Halbesleben, J. R. B. 2003. Assessing the construct validity of alternative measures of burnout: An investigation of the Oldenburg Burnout Inventory and the Utrecht Engagement Scale. Paper presented at the annual meeting of the Southern Management Association, Clearwater Beach, FL.
- Halbesleben, J. R. B., & Bowler, W. M. in press. Organizational citizenship behaviors and burnout. In D. L. Turnipseed (Ed.), A handbook on organizational citizenship behavior: A review of 'good soldier' activity in organizations. Hauppauge, NY: Nova Science Publishers.
- Halbesleben, J. R. B., & Buckley, M. R. in press. Attribution and burnout: Explicating the role of individual factors in the outcomes of burnout. In M. Martinko (Ed.), *Attribution Theory in the Organizational Sciences: Theoretical and Empirical Contributions*. Greenwich, CT: Information Age Publishing.
- Hobfoll, S. E. 1988. The ecology of stress. New York: Hemisphere.
- Hobfoll, S. E. 1989. Conservation of resources: A new attempt at conceptualizing stress. American Psychologist, 44: 513–524.
- Hobfoll, S. E. 1998. Stress, culture, and community. New York: Plenum.
- Hobfoll, S. E. 2001. The influence of culture, community, and the nested self in the stress process: Advancing conservation of resources theory. Applied Psychology: An International Review, 50: 337–370.
- 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*, Washington, DC: Taylor & Francis.
- Hwang, C., Scherer, R. F., & Ainina, M. F. 2003. Utilizing the Maslach Burnout Inventory in cross-cultural research. *International Journal of Management*, 20: 3–10.
- International Labour Office. 1993. World Labor Report 1993. Geneva: International Labour Office.
- Jansen, P. G. M., Kerkstra, A., Abu-Saad, H. H., & van der Zee, J. 1996. The effects of job characteristics and individual characteristics on job satisfaction and burnout in community nursing. *International Journal of Nursing Studies*, 33: 407–421.
- Jones, F., & Fletcher, B. 1996. Job control and health. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), Handbook of work and health psychology: 33–50. Chichester, UK: Wiley.
- Kaniasty, K., & Norris, F. 1993. A test of the social support deterioration model in the context of a natural disaster. *Journal of Personality and Social Psychology*, 64: 395–408.
- Kaniasty, K., & Norris, F. 1993. In search of altruistic community: Patterns of social support mobilization following Hurricane Hugo. *American Journal of Community Psychology*, 23: 447–477.
- Kalliath, T. J. 2000. A test of the Maslach Burnout Inventory in three samples of healthcare professionals. Work & Stress, 14: 35–51.

- Karasek, R. A. 1979. Job demands, job decision latitude and mental strain: Implications for job redesign. Administrative Science Quarterly, 24: 285–308.
- Keijsers, G. J., Schaufeli, W. B., Le Blanc, P. M., Zwerts, C., & Miranda, D. R. 1995. Performance and burnout in intensive care units. Work & Stress, 9: 513–527.
- Koeske, G., & Koeske, R. 1993. A preliminary test of the stress-strain-outcome model for reconceptualizing the burnout phenomenon. Social Service Research, 17: 107–135.
- Koniarek, J., & Dudek, B. 1996. Social support as a buffer in the stress-burnout relationship. *International Journal of Stress Management*, 3: 99–106.
- Lazarus, R. S., & Folkman, S. 1984. Stress, appraisal, and coping. New York: Springer.
- Lee, R. T., & Ashforth, B. E. 1990. On the meaning of Maslach's three dimensions of burnout. *Journal of Applied Psychology*, 75: 743–747.
- 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.
- Leiter, M. P. 1991. Coping patterns as predictors of burnout: The functions of control and escapist coping patterns. Journal of Organizational Behavior, 12: 123–144.
- Leiter, M. P. 1993. Burnout as a developmental process: Consideration of models. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), Professional burnout: Recent developments in theory and research. Washington, DC: Taylor & Francis
- Leiter, M. P., Harvie, P., & Frizzell, C. 1998. The correspondence of patient satisfaction and nurse burnout. Social Science & Medicine, 47: 1611–1617.
- Leiter, M. P., & Maslach, C. 2001. Burnout and quality in a speed-up world. *Journal for Quality & Participation*, 24: 48–51.
- Leiter, M. P., & Maslach, C. 2004. In P. L. Perrewe & D. C. Ganster (Eds.), Research in occupational stress and well-being: Vol. 3. Areas of worklife: A structured approach to organizational predictors of job burnout: 91–134. Oxford: Elsevier.
- Leiter, M. P., & Schaufeli, W. B. 1996. Consistency of the burnout construct across occupations. Anxiety, Stress, & Coping, 9: 229–243.
- Maslach, C. 1982. Burnout: The cost of caring. Englewood Cliffs, NJ: Prentice Hall.
- Maslach, C. 1993. Burnout: A multi-dimensional perspective. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), Professional burnout: Recent developments in theory and research. Washington, DC: Taylor & Francis.
- Maslach, C., & Goldberg, J. 1998. Prevention of burnout: A new perspective. Applied Preventative Psychology, 7: 63–74.
- Maslach, C., & Jackson, S. E. 1981. The measurement of experienced burnout. *Journal of Occupational Behavior*, 2: 99–113.
- Maslach, C., Jackson, S. E., & Leiter, M. P. 1996. Maslach Burnout Inventory manual (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., & Leiter, M. P. 1997. The truth about burnout. San Francisco: Jossey-Bass.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. 2001. Job burnout. Annual Review of Psychology, 52: 397-422.
- McNiff, J. 2000. Action research in organizations. London: Routledge.
- Montgomery, A. J., Peeters, M. C. W., Schaufeli, W. B., & Den Ouden, M. 2003. Work-home interference among newspaper managers: Its relationship with burnout and engagement. *Anxiety, Stress, & Coping*, 16: 195–211.
- Moore, J. E. 2000. Why is this happening? A casual attribution approach to work exhaustion consequences. Academy of Management Review, 25: 335–349.
- Norris, F. H., & Kaniasty, K. 1996. Received and perceived social support in times of stress: A test of the social support deterioration deterrence model. *Journal of Personality and Social Psychology*, 71: 498–511.
- Osburn, H. K., Halbesleben, J. R. B., & Mumford, M. D. 2003. Reducing stress and burnout in the federal fire service: An action research approach. Paper presented at the annual meeting of the American Psychological Society, Atlanta, GA.
- Parker, P. A., & Kulik, J. A. 1995. Burnout, self- and supervisor-rater job performance and absenteeism among nurses. *Journal of Behavioral Medicine*, 18: 581–599.

- Pines, A. 1993. Burnout: An existential perspective. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research.* Washington, DC: Taylor & Francis.
- Pines, A., & Aronson, E. 1988. Career burnout: Causes and cures. New York: Free Press.
- Reason, P., & Bradbury, H. 2001. The handbook of action research. London: Sage.
- Ross, R. R., & Altmaier, E. M. 1994. Intervention in occupational stress. London: Sage.
- Schaufeli, W. B. in press. Past performance and future perspectives on burnout research. *South African Journal for Industrial and Organisational Psychology*.
- Schaufeli, W. B., & Bakker, A. B. 2004. Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25: 293–315.
- Schaufeli, W. B., Bakker, A. B., Hoogduin, K., Schaap, C., & Kladler, A. 2001. On the clinical validity of the Maslach Burnout Inventory and the Burnout Measure. *Psychology and Health*, 16: 565–582.
- Schaufeli, W. B., & Buunk, B. P. 2002. Burnout: An overview of 25 years of research and theorizing. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), *Handbook of work and health psychology:* 383–425. Chichester, UK: Wiley.
- Schaufeli, W. B., & Enzmann, D. 1998. The burnout companion to study and practice. London: Taylor & Francis.
  Schaufeli, W. B., Enzmann, D., & Girault, N. 1993. Measurement of burnout: A review. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), Professional burnout: Recent developments in theory and research: 199–215. Washington, DC: Taylor & Francis.
- Schaufeli, W. B., & Greenglass, E. R. 2001. Introduction to special issue on burnout and health. *Psychology & Health*, 16: 501–510.
- Schaufeli, W. B., & Janczur, B. 1994. Burnout among nurses: A Polish-Dutch comparison. *Journal of Cross-Cultural Psychology*, 25: 95–113.
- Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. 1996. The Maslach Burnout Inventory—General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *Maslach Burnout Inventory* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Schaufeli, W. B., Maslach, C., & Marek, T. 1993a. Professional burnout: Recent developments in theory and research. Washington, DC: Taylor & Francis.
- Schaufeli, W. B., Maslach, C., & Marek, T. 1993b. The future of burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), Professional burnout: Recent developments in theory and research. Washington, DC: Taylor & Francis.
- Schaufeli, W. B., & van Dierendonck, D. 1993. The construct validity of two burnout measures. *Journal of Organizational Behavior*, 14: 631–647.
- Schaufeli, W. B., & van Dierendonck, D. 1995. A cautionary noted about the cross-national and clinical validity of cut-off points for the Maslach Burnout Inventory. *Psychological Reports*, 76: 1083–1090.
- Schaufeli, W. B., van Dierendonck, D., & van Gorp, K. 1996. Burnout and reciprocity: Towards a dual-level social exchange model. Work & Stress, 10: 225–237.
- Schutte, N., Toppinen, S., Kalimo, R., & Schaufeli, W. 2000. The factorial validity of the Maslach Burnout Inventory-General Survey (MBI-GS) across occupational groups and nations. *Journal of Occupational and Organizational Psychology*, 73: 53–67.
- Semmer, N. 1996. Individual differences, work stress, and health. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), Handbook of work and health psychology: 51–86. Chichester, UK: Wiley.
- Shinn, M. 1982. Methodological issues: Evaluating and using information. In W. S. Paine (Ed.), Job stress and burnout. Beverly Hills: Sage.
- Shirom, A. 2003. Job-related burnout: A review. In J. C. Quick & L. E. Tetrick (Eds.), Handbook of occupational health psychology: 245–264. Washington, DC: American Psychological Association.
- Shirom, A., Westman, M., Shamai, O., & Carel, R. S. 1997. Effects of work overload and burnout on cholesterol and triglycerides levels: The moderating effects of emotional reactivity among male and female employees. *Journal of Occupational Health Psychology*, 2: 275–288.
- Siegall, M., & McDonald, T. 2004. Person-organization value congruence, burnout, and diversion of resources. *Personnel Review*, 33: 291–301.
- 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.

- Taris, T. W., Peeters, M. C. W., Le Blanc, P. M., Schreurs, P. J. G., & Schaufeli, W. B. 2001. From inequity to burnout: The role of job stress. *Journal of Occupational Health Psychology*, 6: 303–323.
- Taris, T. W., Schreurs, P. J. G., & Schaufeli, W. B. 1999. Construct validity of the Maslach Burnout Inventory-General Survey. A two-sample examination of its factor structure and correlates. Work & Stress, 13: 223–237.
- Tepper, B. J. 2001. Health consequences and organizational injustice: Tests of main and interactive effects. Organizational Behavior and Human Decision Processes, 86: 197–215.
- Truchot, D., & Deregard, M. 2001. Perceived inequity, communal orientation, and burnout: The role of helping models. Work & Stress, 15: 347–356.
- Vandenberghe, R., & Huberman, A. M. 1999. Understanding and preventing teacher burnout: A sourcebook of international research and practice. New York: Cambridge University Press.
- Van der Klink, J., Blonk, R., Schene, A., & van Dijk, F. 2001. The benefits of interventions for work-related stress. American Journal of Public Health, 91: 270–276.
- Van der Zee, K. I., Bakker, A. B., & Buunk, B. P. 2001. Burnout and reactions to social comparison information among volunteer caregivers. Anxiety, Stress, & Coping, 14: 391–410.
- Van Dierendonck, D., Schaufeli, W. B., & Buunk, B. P. 1998. The evaluation of an individual burnout intervention program: The role of inequity and social support. *Journal of Applied Psychology*, 83: 392–407.
- Van Dierendonck, D., Schaufeli, W. B., & Bunnk, B. P. 2001. Burnout and inequity among human service professionals: A longitudinal study. *Journal of Occupational Health Psychology*, 6: 43–52.
- Wanous, J. P. 1992. Organizational entry. Reading, MA: Addison-Wesley.
- Witt, L. A., Andrews, M. C., & Carlson, D. S. 2004. When conscientiousness isn't enough: Emotional exhaustion and performance among call center customer service representative. *Journal of Management*, 30: 149–160.
- Wright, T. A., & Bonett, D. G. 1997. The contribution of burnout to work performance. *Journal of Organizational Behavior*, 18: 491–499.
- Wright, T. A., & Cropanzano, R. 1998. Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83: 486–493.
- Zellars, K. L., Perrewé, P. L., & Hochwarter, W. A. 2000. Burnout in health care: The role of the five factors of personality. *Journal of Applied Social Psychology*, 30: 1570–1598.
- **Jonathon R. B. Halbesleben** is currently a Visiting Assistant Professor of Management in the Michael F. Price College of Business at the University of Oklahoma. He received his Ph.D. in Industrial/Organizational Psychology from the University of Oklahoma. His research interests are in the areas of stress and burnout, customer contributions to services, social comparison, and management history.
- *M. Ronald Buckley* holds the JC Penney Company Chair in Business Leadership in the Michael F. Price College of Business at the University of Oklahoma. He received his Ph.D. in Industrial/Organizational Psychology from Auburn University. His research interests are in human resource management including organizational socialization and performance appraisal.