INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

ProQuest Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600

UMI®

Downloaded from SHAREOK. Persistent Handle URL: https://hdl.handle.net/11244/559

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

BURNOUT AND ENGAGEMENT: CORRELATES AND MEASUREMENT

A Dissertation

Submitted to the Graduate Faculty

in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

By

Jonathon R. B. Halbesleben

Norman, OK

2003

UMI Number: 3078944



UMI Microform 3078944

Copyright 2003 by ProQuest Information and Learning Company.
All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

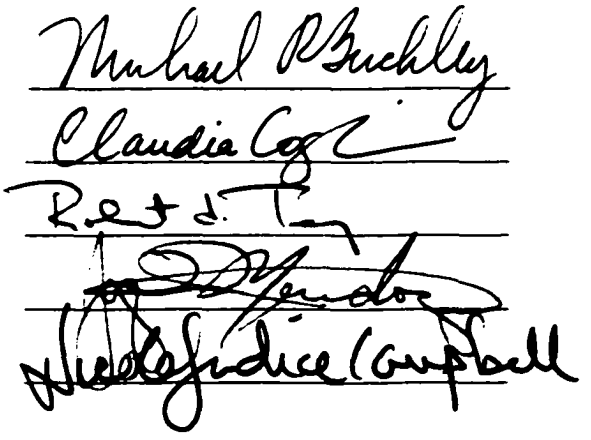
ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

© Copyright by JONATHON R. B. HALBESLEBEN 2003
All Rights Reserved

BURNOUT AND ENGAGEMENT:
CORRELATES AND MEASUREMENT

A Dissertation APPROVED FOR THE
DEPARTMENT OF PSYCHOLOGY

BY



Acknowledgements

A great many people have helped to shape this research; to each of them I am sincerely grateful. While this dissertation is single-authored, it is truly the product of my relationships with these very supportive people.

I am thankful to my parents, who instilled a curiosity and learning spirit that have guided me to this point. They taught me the importance of always working toward something better.

I thank Mike Buckley for his unending support of all that I have done over the past few years. Mike has taught me many important lessons in my four years of working with him, each of which I will carry with me throughout my career.

I owe a great deal of gratitude to my committee members, Jorge Mendoza, Robert Terry, Nicole Judice Campbell, and Claudia Cogliser, whose continued support and guidance has been sincerely appreciated. I am fortunate to have had the opportunity to work with such a wonderful group of scholars.

Most of all, I wish to thank my wife, Jenn. Without her uncompromising support and immense patience, I simply would not be where I am today. I am thankful for each moment I spend with her; and look forward to many more. I am a better person because of her.

Table of Contents

Burnout 2

Defining Burnout 2

Measuring Burnout 3

Antecedents of Burnout 6

Work-Related Consequences of Burnout 9

The Opposite of Burnout: Engagement 13

Measurement of Engagement 14

Study 1 15

Method 16

Results 18

Discussion 21

Study 2 22

Method 22

Results 23

Discussion 25

Study 3 27

Method 27

Results 28

Discussion 32

Study 4 33

Method 33

Results 35

Discussion 42

Study 5 45

Method 45

Results 47

Discussion 51

General Discussion 53

Implications for Practice 54

Implications for Burnout Theory and Research 56

Limitations 57

Concluding Remarks 58

References 60

Tables 71

Abstract

Burnout has become an important aspect of organizational reality for workers worldwide. Despite a growing body of literature concerning burnout, there are many questions about the measurement and process of burnout that have not been addressed. Moreover, researchers have begun to develop a theoretical antithesis of burnout, engagement, which is in need of significant research in order to better understand it implications for employees and organizations. This dissertation addresses a number of issues with regard to the measurement and process of burnout and engagement. First, this study provides evidence of the factorial and construct validity of an alternative measure of burnout that addresses some of the limitations of the popular Maslach Burnout Inventory. Second, this study investigates the role of perceptions of politics as an antecedent of burnout. Third, this study examines the role of motivation as a mediator in the relationship between burnout and job performance. Finally, this study provides evidence of the factorial and construct validity of a measure of engagement. I conclude by discussing the implications of these findings for burnout research, measurement, and organizations.

Burnout and Engagement:

Correlates and Measurement

For thousands of workers worldwide, the spark they began their careers with is slowly fading. In many ways, they are beginning to feel like a battery. They began "fully charged," but their energy has slowly faded over time. As a result, they feel emotional drained, they start to pull away from their jobs, and they start to believe they are not as good at their jobs as they once were. To extend the battery metaphor, what they need is to be recharged.

Unfortunately, burnout has become organizational reality for many workers. Maslach and Leiter (1997) argued that burnout has reached epidemic proportions in North America. What started as a "buzzword" in the popular press in the late 1970's has grown into an important research endeavor; burnout is now the subject of thousands of research articles and dozens of books. Its effects cannot be understated; burnout has significant impact on people, organizations, and society on the whole (Paine, 1982; Minnehan & Paine, 1982).

The purpose of my dissertation is to investigate a number of issues related to burnout and its theoretical antithesis, engagement. First, I investigated the measurement of both burnout and engagement by developing validation evidence for a recently proposed measure of burnout, the Oldenburg Burnout Inventory, and a new measure of engagement, the Utrecht Engagement Scale. Second, I investigated the role of politics and perceptions of performance appraisal as an antecedent to burnout. Finally, I examined the mediating effect of motivation to help explain the link between burnout and job performance.

Burnout

Defining Burnout

Burnout is a psychological response to work that consists of emotional exhaustion, depersonalization, and reduced perceptions of personal accomplishment (Maslach, 1982a, 1982b; Maslach, Schaufeli, & Leiter, 2001). Research on burnout grew out of two simultaneously developing research streams in the 1970's. Freudenberger (1975) studied burnout from a psychiatric approach, providing personal and patient accounts of the phenomenon. He coined the term burnout because of its relationship with the effects of chronic drug abuse (Maslach et al., 2001). Around the same time, Maslach (1976, 1978) was studying emotions in the workplace and found a similar pattern of emotional depletion while interviewing poverty lawyers. In fact, the lawyers had a term for such depletion, "burnout," and Maslach adopted it for the pattern of symptoms she was observing. Interestingly, whenever she mentioned burnout to other poverty lawyers in interviews, they immediately understood her reference.

The three key dimensions of burnout are emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, 1982a). Emotional exhaustion refers to feelings of being overextended and depleted of one's emotional and physical resources. Depersonalization refers to a negative, callous, or excessively detached response to various aspects of the job. Reduced personal accomplishment refers to a decline in feelings of competence or productivity at work (Maslach et al., 2001; Maslach & Goldberg, 1998). Consensus on these components of burnout has led to the development of a three-factor model of the phenomenon (Maslach & Goldberg, 1998). In general, supporters of this model suggest that emotional exhaustion leads to depersonalization,

which in turn leads to lack of personal accomplishment (Leiter, 1989; Leiter & Maslach, 1988).

In contrast to the three-factor model of burnout, Golembiewski and his colleagues (Golembiewski, 1989; Golembiewski & Muzenrider, 1988; Golembiewski, Muzenrider, & Stevenson, 1986) have presented a model of burnout (the phase model) that suggests similar factors, but a substantially different causal pattern. In the phase model, it is suggested that depersonalization leads to a lack of personal accomplishment, which leads to emotional exhaustion. The differences between these two major models have only recently been investigated, with generally more support for the three-factor model and progression described by Leiter and Maslach (1988; Lee & Ashforth, 1993a).

Measuring Burnout

A significant amount of the burnout literature has been concerned with the measurement of burnout. Much of that research has focused on a small number of self-report measures that have been developed to measure burnout. Some of these have fallen out of favor with burnout researchers because of psychometric and theoretical concerns (e.g., the Burnout Measure; see Enzmann, Schaufeli, Janssen, & Rozeman, 1998); therefore, I will focus this discussion on the most currently accepted measures of burnout. Among those are the Maslach Burnout Inventory and the Oldenburg Burnout Inventory.

The Maslach Burnout Inventory (MBI). The most utilized self-report measure of burnout has been the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996). Developed in the early 1980's by Maslach and Jackson (1981), it is based on a three-factor model of burnout and includes scales to measure emotional exhaustion, depersonalization, and personal accomplishment. Currently, three versions of the MBI

have been developed, the original MBI that was developed for use with human service jobs, a version developed for educational occupations, and the MBI-General Services scale that is intended for occupations without a significant human service component. These new versions of the MBI reflect the evolution of thinking about burnout. While burnout was originally conceived as a syndrome that was only relevant to those working directly with other people in a service capacity, the domain of burnout has quickly expanded to include non-human services occupations.

While originally developed in American samples, the MBI has been translated and validated in number of other countries, including Greece (Kantas & Vassilki, 1997), Japan (Masuda, 1997), Sweden (Schutte, Toppinen, Kalimo, & Schaufeli, 2000), Finland (Schaufeli, Leiter & Kalimo, 1995), The Netherlands (Schaufeli, 1995) and others. This has led to an increase in cross-cultural burnout research (Schutte et al., 2000).

The three-factor structure (with correlated factors) is remarkably invariant across occupations, nationalities, and versions of the MBI (Lee & Ashforth, 1990; Nye, Witt, & Schroeder, 1992; Schutte et al., 2000; Taris, Schreuers, & Schaufeli, 1999). However, a number of authors have suggested that a two-factor model that includes only emotional exhaustion and depersonalization might be more appropriate (e.g., Kalliath, 2000), in part because of the manner in which the personal accomplishment burnout factor is differentially related to other organizational outcomes (e.g., job satisfaction and organizational commitment). While emotional exhaustion and cynicism generally show consistent relationships with other outcomes, personal accomplishment is far less consistent in these relationships. In fact, this suggestion, along with other concerns with

the MBI (e.g., the lack of balanced wording of questions within burnout subscales) has led to the recent development of another burnout scale, the Oldenburg Burnout Inventory.

The Oldenburg Burnout Inventory (OLBI). Despite mounting evidence supporting the use of the MBI for the assessment of burnout, the MBI is not without detractors. Demerouti, Bakker, Nachreiner, and Schaufeli (2001) argued that there were a number of problems with the MBI. First, they argued 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 lead to response biases and might lead to artificial clustering of factors based on positively and negatively worded scales (Demerouti & Nachreiner, 1996; Lee & Ashforth, 1990).

To address these problems, Demerouti, Bakker, Kantas, and Vardakou (2002) have developed and offered initial construct validity evidence for the Oldenburg Burnout Inventory (OLBI). The OLBI is based on a model similar to that of the MBI; however, it features only two scales, exhaustion and disengagement. The most current version of the OLBI features questions that are have balanced positive and negative wording (Demerouti, personal communication, April 11, 2002). 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 (Pines, Aronson, & Kafry, 1981; Shinn, 1982). The OLBI is also designed to reflect a broader conceptualization of burnout that is not restricted to human service positions, with questions that apply to any occupational group (Demerouti et al., 2001).

The psychometric properties of the OLBI are still being investigated. Demerouti et al. (2002) have argued that the OLBI demonstrates excellent convergent validity when compared to the MBI. Demerouti et al. (2001) confirmed the two-factor structure of the OLBI in a sample that included human service, industrial, and transportation jobs. They also used the OLBI to demonstrate support for the emerging job demands-resources model of burnout (Karasek, 1979).

Interestingly, while the MBI was developed in the United States and has been translated into many other languages for use in a variety of other countries, the OLBI has not been utilized in an American sample. One purpose of this dissertation is to further develop validity evidence of the OLBI by using an American sample. As such, it will be included as a measure of burnout in all three of the proposed studies.

Hypothesis 1: The OLBI will demonstrate two a priori measurement factors, exhaustion and disengagement.

Hypothesis 2: Using a multi-trait, multi-method framework, the OLBI will show acceptable convergent and discriminant validity vis-à-vis the MBI (i.e., they are independent, but related measures of burnout).

Antecedents of Burnout

Another area of burnout research that has garnered a lot of attention has been investigating the individual and organizational antecedents. Antecedents that have been investigated have included organizational culture and climate (Gaines & Jermier, 1983; O'Driscoll & Schubert, 1988), vacation time (Westman & Etzion, 2001), age (Cranswick, 1997), sense of control of occupational hazards (Leiter & Robichaud, 1997), role stress (Peiro, Gonzalez-Roma, & Manas, 2001), work hours (Barnett, Gareis, & Brennan,

1999), job demands and resources (Demerouti et al., 2002; Janssen, Schaufeli, & Houkes, 1999) personality (Burisch, 2002), organizational commitment (Kalliath, O'Driscoll, & Gillespie, 1998) and social comparison errors (Daniel & Rogers, 1981; Halbesleben, Sauer, Salamon, & Buckley, 2002). Despite a great deal of work concerning the antecedents of burnout, two potential antecedents have not been adequately investigated: the role of perceptions of organizational politics and perceptions of the performance appraisal system employed by the organization.

Perceptions of politics. Politics has become an important part of organizational reality for most individuals (Ferris, Russ, & Fandt, 1989). As a result, the study of politics in organizations, and particularly the study of *perceptions* of politics has become an important stream of research over the past 15 years (Ferris & Kacmar, 1992). Ferris, et al. (1989) proposed a model of perceptions of politics that suggested those perceptions lead to outcomes such as job anxiety, job dissatisfaction, and organizational withdrawal. Interestingly, despite what appear to be rather clear links to burnout (with anxiety and dissatisfaction as precursors to burnout and withdrawal a consequence of burnout; Lee & Ashforth, 1993b, 1996) there has been a dearth of investigation of the links between perceptions of politics and burnout.

Given the outcomes of perceptions of politics in relations to the antecedents of burnout, I believe that increases in perceptions of politics will lead to greater levels of burnout. This is in part because of work in burnout suggesting that burnout is the result of anxiety and job dissatisfaction (Lee & Ashforth, 1996). Additionally, this proposition stems from theories that burnout can be caused by unmet expectations about one's job. If one believes that they are going to work in a position whereby he or she can simply focus

on their job without worrying about organizational politics, that expectation is unlikely to be met (given the pervasiveness of organizational politics). As a result, burnout would be increased as a result of perceptions of politics.

Hypothesis 3: Higher levels of perceptions of politics will be associated with higher levels of burnout.

Perceptions of performance appraisal. One aspect of organizations in which politics is very salient is in performance appraisal (Halbesleben, Buckley, & Wheeler, 2002). Longenecker and his associates (Gioia & Longenecker, 1994; Longenecker, 1984; Longenecker & Ludwig, 1990; Longenecker, Sims, & Gioia, 1987) have written a series of papers on the political behavior managers engage in when conducting performance appraisals. In general, they have found that managers realize that the performance appraisal process holds some utility for the manager (Longenecker, 1984). In other words, managers realize that there are a number of ways in which they can use the appraisal process to their advantage. As such, in some cases it is to the advantage of the supervisor to inflate ratings, and at other times, it is more advantageous to deflate performance ratings.

As indicated in the previous section, perceptions of politics feed into established antecedents of burnout and may lead to unmet expectations. Furthermore, there is some evidence that negative perceptions of performance appraisal are associated with greater burnout. Gabris and Ihrke (2001) found that when employees perceived a lack of procedural and distributive justice in performance appraisal, they had higher levels of burnout. This suggests, at least initially, that negative perceptions of the performance appraisal process can lead to greater burnout. To expand on that notion and to integrate it

with the above suggestions about politics, I propose that perceptions of politics specific to the performance appraisal and lack of trust in performance appraisal will be associated with higher levels of burnout.

Hypothesis 4: Higher levels of perceived politics in performance appraisal will be associated with higher levels of burnout.

Hypothesis 5: Lower levels of trust in performance appraisal will be associated with higher levels of burnout.

Work-Related Consequences of Burnout

There has been some attention given to the various outcomes of burnout, including physiological consequences (c.f., Shirom, Westman, Shamai, & Carel, 1997), turnover, and turnover intentions (Cherniss, 1992; Freudenberger, 1975; Lee & Ashforth, 1993a, 1996; Maslach, 1976, 1978; Pines, Aronson, & Kafry, 1981). Despite this effort, there still remain many questions regarding the outcomes, particularly those that are work-related, of burnout (Maslach, 2001). Most models of burnout (e.g., Cordes & Dougherty, 1993) treat burnout as the end state, without considering what other consequences burnout may influence. This is problematic, as burnout is perhaps best considered as a mediator that leads to other important work-related consequences (Maslach & Leiter, 1999). In the following section, I will discuss the role of two important consequences of burnout, job performance and motivation.

Job Performance. One of the most commonly cited negative consequences of burnout is a reduction in job performance (Maslach, 1982a). However, as noted by Wright and Bonett (1997), there has been very little empirical work conducted to investigate the relationship between burnout and job performance. In response, they

conducted a longitudinal study that found a negative relationship between only one component of burnout, emotional exhaustion, and job performance. They had predicted that all three components of burnout would influence job performance.

Prior to Wright and Bonett's (1997) work, Keijsers, Schaufeli, LeBlanc, Zwerts, and Miranda (1995) found that burnout had differential effects on performance, depending on how one measured performance. When asked their self-assessment of performance, burnout was inversely related to Dutch nurses' perceptions of their performance (e.g., those who experienced high burnout rated their performance lower). 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 experiencing burnout believe they are not performing as well, when in fact others observe higher performance levels.

At this point, the link between burnout and job performance is tenuous. There have been very few studies that have investigated this link, and they tend to yield equivocal results. Yet, researchers continue to suggest that the intuitive link between burnout and performance is intractable.

Hypothesis 6: Higher levels of burnout will be associated with lower levels of performance.

A limitation of the previous thinking about the relationship between burnout and job performance is that it has failed to adequately consider models of performance. When one considers theories of performance, it becomes clear that burnout is unlikely to have a direct effect on job performance, and instead should be mediated by a more direct antecedent of performance. The most notable model of job performance has been

advanced by Campbell (1990, 1999; Campbell, McCloy, Oppler, & Sager, 1993). Campbell's model is based on the idea that performance is a multiplicative function of motivation and ability. As such, only motivation and ability (along with a theoretical constant) are direct causes of performance; anything that purports to influence performance must do so through either motivation and/or ability. In the case of burnout, it appears unlikely that it has its direct effect on ability. While it may lead to perceptions of reduced ability, it does not actually reduce ability. As a result, the most clear path from burnout to job performance may be through motivation (see Figure 1).

Motivation. Despite the theoretical mediating effect of motivation, the relationship between motivation and burnout has not been fully examined. The existing literature on this topic has been primarily concerned with equity theory, but not in the typical organizational sense where employees make social comparisons among themselves. Instead, researchers have investigated the inequity that exists between a human service provider and his or her client (Bunnk & Schaufeli, 1993). For example, Taris, Peeters, LeBlanc, Schreurs, and Schaufeli (2001) found that perceptions of inequity led to greater levels of burnout of teachers. This effect was mediated by the stress resulting from the inequity. Van Dierendonck, Schaufeli, and Buunk (2001) explored the longitudinal effects of inequity and confirmed that professional-recipient inequity led to heightened levels of burnout. Truchot and Deregard (2001) suggested that the model of helping that the professional adopted might buffer the link between inequity and burnout.

It is important to note that the existing motivation-burnout literature has treated distal examples of motivation (such as perceptions of professional-recipient inequity) as

antecedents of burnout. In most of these treatments, motivation has not really been the focus of the study; instead, the researchers have been interested in other aspects of inequity. As such, there exist no studies that have examined the effects burnout has on more direct perceptual and motivational outcomes. This is critical, particularly when considering the findings of previous studies linking performance and burnout. For example, Wright and Bonnet (1997) noted that their results could not be considered definitive without considering other types of performance. Additionally, one could argue that without considering performance antecedents such as motivation, it is not surprising that their results were inconsistent with their predictions.

The linkages between motivation and burnout can be derived from examination of theories of burnout and motivation, particularly the conservation of resources model of motivation (Hobfoll, 1988) and the job demands/job resources model of stress and burnout (Karasek, 1979). The general argument is that when a person experiences burnout, it may be because they lack the resources necessary to meet the demands of the job (Karasek, 1979). As a result, they may try to conserve what resources they do have, thus lowering their motivation.

The motivation-mediation model of the burnout/job performance relationship. The above discussion suggests that burnout is linked to both the job performance and motivation. As illustrated in the top half of Figure 1, previous studies have assumed that burnout is directly linked to performance. However, based on models linking burnout to motivation and motivation to performance, I expect that burnout leads to lower motivation, when then leads to lower job performance (see Figure 1, bottom half). This leads to the following hypotheses:

Hypothesis 7: The relationship between burnout and job performance will be mediated by motivation.

The Opposite of Burnout: Engagement

Much of what we study as management researchers focuses on the negative aspects of the employee experience; burnout follows this trend. However, this trend has been changing, as researchers have begun to recognize the importance of understanding human well-being and celebrating the positive aspects of psychology and organizational behavior (c.f., Luthans, 2002; Seligman & Csikszentmihalyi, 2000). In response to the trend toward positive psychology, Maslach and Leiter (1997, 1999) have reconceptualized burnout as an erosion of engagement with work. More recently, engagement has been defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002, p. 74). The definition advanced by Schaufeli et al. (2002) suggests that engagement and burnout are actually two independent, however closely related, states. In many ways, the notion of engagement fits with the battery metaphor I opened with. The employee starts out "fully charged" (engaged), but loses the charge over time. This conceptualization of engagement will have important implications for how engagement is measured in and facilitated in organizations.

The literature on engagement is largely under development. To date, I know of only a handful of empirical studies that have examined the construct of engagement of employees relative to their work; there is a general need for more research on the concept of engagement in organizations. Demerouti, Bakker, de Jonge, Janssen, and Schaufeli (2001) provided initial comparisons between engagement and burnout in the context of

the job-demands/job-control model, and found that while burnout was related to job demands, engagement tended to be related to job resources, providing support for the demand-control model of psychosocial job characteristics and health (Karasek, 1979). Their study also supported the notion that burnout and engagement are opposite, yet independent, constructs as they had differential effects on demands and resources.

Measurement of Engagement

Initially, it was believed that because engagement was the antithesis of burnout, the best way to measure engagement would be to reverse burnout scores (Maslach & Leiter, 1997; Maslach et al., 2001). However, given the definition of engagement proposed by Schaufeli et al. (2002) that treats engagement as independent of burnout, a simple reversal of burnout scores is not appropriate. Bakker and Schaufeli (1999) developed the Utrecht Engagement Scale to account for this independence. It includes scales to measure each of the three facets of engagement: vigor, dedication, and absorption.

Schaufeli et al. (2002) conducted a study that was primarily concerned with the measurement of engagement. They compared an engagement scale to the Maslach Burnout Inventory, finding that the predicted three-factor structure was found with both scales. Interestingly, a model with two higher order factors to independently explain the burnout and engagement scales did not fit the data as it had been expected to. One of the goals of this paper is to further develop the engagement literature and study engagement in an American sample. To do so, I replicate and extend the findings of Schaufeli et al. (2002). It is believed that the measurement characteristics of the engagement scale, with its three correlated factors, will replicate in a student sample.

Hypothesis 8: A measurement model of engagement with three a priori factors will fit data from three different employee samples.

One of the important ways that I extend the work of Schaufeli et al. (2002) is that I conducted a multi-trait, multi-method (MTMM) analsysis to develop evidence for the construct validity of a measure of engagement. While Schaufeli et al. examined the measurement model associated with the Utrecht Engagement Scale, they did not adequately develop evidence of the construct validity of the scale.

Hypothesis 9: Using a multi-trait, multi-method framework, engagement will show convergent and discriminant validity vis-à-vis burnout (i.e., they are independent, but related constructs).

By testing this hypothesis, I also extend the work Schaufeli et al. (2002) by testing the hypotheses across three different employee samples. To this point, the research on engagement has been limited to European samples; this study is the first known study of engagement utilizing American workers. Furthermore, I extend the occupational samples in the engagement literature by using employed students, hairstylists, and employees of a fire department. Overall, I predict that, similar to the measurement of burnout, the construct validity evidence for engagement will be invariant across the three samples.

Hypothesis 10: The construct validity evidence for the engagement scale will be invariant across three employee samples.

STUDY 1

The purpose of this study was to investigate the factorial and construct validity of the Oldenburg Burnout Inventory (OLBI), a relatively new measure of burnout that is purported to be suitable for nearly any occupational context. This study had three

primary objectives. First, I sought to assess the two-factor model of burnout upon which the OLBI is based (see Hypothesis 1). Second, I sought to investigate the construct validity of the OLBI using the multitrait-multimethod (MTMM) framework (see Hypothesis 2; Campbell & Fiske, 1959). Finally, I sought to investigate the extent to which the above findings generalize to a group of four employed samples that represent a variety of occupational contexts.

Method

Participants & Procedure

Not-for-profit human services employees. Surveys were distributed to the employees of a nonprofit organization with one of their biweekly paychecks. They were given a postage-paid envelope for the return of the informed consent form and survey. Of the 110 surveys distributed in the organization, 36 were returned, for a response rate of 33 percent. The measures utilized for this study were part of a larger packet of research measures. Because of the relatively low size of this sample, the human service employees are not included in analyses that involved structural equation modeling.

Employed students. A total of 405 employed students from introductory psychology and introductory management courses completed a survey that included measures of engagement, burnout, and other organizational outcomes. For completing the survey, they were offered credit that partially fulfilled a course requirement of participation in research. The students completed the surveys in large group sessions.

Hairstylists. Following the survey, some of the students were given a similar survey and asked to give it to their hairstylist to complete. The hairstylists returned the surveys directly to the researcher via a postage-paid envelope that was provided with the

survey. Of the 265 surveys that were distributed to the hairstylists by students, 85 usable surveys were returned, for a response rate of 32 percent.

Fire department employees. Surveys were distributed to the staff of a federal fire department (both management and firefighters) in group sessions. Of the 91 employees of the fire department, two declined to participate, resulting in a sample of 89 respondents. Eighty-five surveys were returned, for a response rate of 95 percent. The measures utilized for this study were part of a larger packet of research measures that were utilized as part of a larger project with the fire department.

Measures

The measure of primary interest in this study was the Oldenburg Burnout Inventory (OLBI; Demerouti, 1999; Demerouti & Nachreiner, 1998). Demerouti and her colleagues developed the OLBI in order to address the psychometric shortcomings of the Maslach Burnout Inventory (specifically, the one-sided wording of all of the items) and to offer a burnout measure that can be used in a wider variety of occupations. The OLBI assesses burnout on two dimensions—exhaustion and disengagement.

As a comparison measure of burnout, the Maslach Burnout Inventory-General Survey (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996) was utilized. The MBI-GS is a 16-item survey that measures burnout on three dimensions—emotional exhaustion (which corresponds to the exhaustion scale of the OLBI), cynicism (which corresponds to the disengagement scale of the OLBI), and personal efficacy (which is reverse coded so that all three scales are scored in the same direction). As with the OLBI, the MBI-GS is intended to be a general survey that applies to a wide number of occupations.

Results

Factor Analysis

The means, standard deviations, internal consistency estimates (Cronbach's alpha), and scale intercorrelations can be found in Table 1. As a first step in establishing evidence for the validity of the OLBI, I tested the factorial validity of the scale. When Demerouti et al. (2002) developed the scale, they had intended for it to assess two components of burnout: exhaustion and disengagement. Their analyses supported this two-factor measurement model. I replicated that analysis in each sample, comparing the proposed two-factor model with an alternative, unidimensional model.

Fit statistics for the three models across the three samples can be found in Table 2. The fit statistics were chosen to represent a wide variety of the most commonly utilized fit statistics in organizational research, with the recognition that multiple fit statistics should be reported in a structural equation modeling (SEM) setting. I gave particular emphasis to fit indicators that allowed for comparison across the alternative models.

In relative terms, comparing the three models across the three samples provides ample evidence to suggest that the proposed two-factor model is the best fitting model for these data. It tends to have the most favorable χ^2 to degrees of freedom ratios; the lowest root mean squared error of approximations (RMSEA), Akaike's Information Criterion (AIC), and Bayesian Information Criterion (BIC); and it tends to have the highest goodness of fit index (GFI), comparative fit index (CFI) and Tucker-Lewis index (TLI) of the two models tested. Overall, it appears that the two-factor model proposed by Demerouti et al. (2002) is the best fitting measurement model for the OLBI.

MTMM Analysis

The analysis strategy utilized to assess the convergent and discriminant validity of the UES was the multi-trait, multi-method framework (MTMM), similar to that proposed by Campbell and Fiske (1959). The correlation matrix for the human services sample indicates high correlations between corresponding trait subscales (e.g., OLBI exhaustion and MBI-GS emotional exhaustion), with relatively lower correlations between non-corresponding subscales (e.g., OLBI exhaustion and MBI-GS cynicism). Rather than comparing correlation coefficients to estimate the validities in the other three samples, I have conducted MTMM analysis using SEM. Essentially, I tested three types of models: trait, method, and MTMM models. This type of analysis has been used before to assess the convergent and discriminant validity of measures in the burnout literature (c.f., Demerouti et al., 2002).

Table 3 reports the fit statistics for the models tested in the MTMM analysis. They are broken down by model and sample. As was the case in the factor analysis above, the fit statistics were chosen to represent a wide variety of the most commonly utilized fit statistics in organizational research, with the recognition that multiple fit statistics should be reported in a structural equation modeling (SEM) setting. I gave particular emphasis to fit indicators that allowed for comparison across the alternative models. Figure 2 visually displays the MTMM model.

The trait models are based on the traits that each instrument is designed to measure. These models are tested with the measures collapsed, that is, the individual items only load onto a trait and not a method (it is the right side of the MTMM model in Figure 2).

The method model is based on the assumption that the structure in the data can be best determined by the actual measures rather than the traits they are believed to measure. This model is tested with the traits collapsed, that is, the individual items only load onto a method and not a trait (the left side of the MTMM model in Figure 2). The method model tested included correlated methods.

The final model, the MTMM model, assumes that each item is determined both by its trait and its method (see Figure 2). It combines the trait and method models, allowing the traits to correlate and the methods to correlate. Generally speaking, one would expect this model to offer the best fit if the measures offer convergence with regard to the traits but are also independent measures. To further test the discriminant validity of the measures, I tested the correlated method (unconstrained) MTMM model with one where the methods are correlated at 1.0 (constrained; c.f., Bagozzi, 1993). The assumption is that if the measures are indeed independent, a model that allows them to correlate, but not perfectly, should fit better than the constrained model. In the case of this study, when running the unconstrained model, the correlation between the methods was .76, indicated that there was quiet a bit of shared variance, but not complete overlap.

Overall, I found that the unconstrained MTMM model offered the best fit among the trait and method models. It tends to have the most favorable χ^2 to degrees of freedom ratios, the lowest root mean squared error of approximations (RMSEA), Akaike's Information Criterion (AIC), and Bayesian Information Criterion (BIC), and it tends to have the highest goodness of fit index (GFI), comparative fit index (CFI) and Tucker-Lewis index (TLI) of the models. This finding offers support for the convergent and discriminant validity of the OLBI *vis-à-vis* the MBI-GS. Support for this model suggests

that while there is clearly some convergence in the measurement of traits related to burnout, the scales offer enough divergence to support their independent contributions in the measurement of burnout.

Discussion

This study provided evidence for the factorial and construct validity of the Oldenburg Burnout Inventory (OLBI). I found support for the two-factor structure (as compared to a unidimensional model) of the OLBI. I also found support for the convergence and divergence of the OLBI and MBI-GS using a MTMM framework. The findings were consistent across all four samples, indicating stability of the findings across a wide variety of occupational groups.

The small difference between the constrained and unconstrained MTMM models indicates that while there is some divergence between the OLBI and the MBI-GS, there is a great deal of similarity in the methods (indeed, in the unconstrained models, the correlation between the OBLI and MBI-GS method factors exceeded .70 in all three samples). This is likely due to the design of the scales; they were both designed to assess burnout in a manner that is free of a specific occupational context (i.e., human services). Given the psychometric design improvements of the OLBI over the MBI-GS, this finding suggests that the OLBI might offer a reasonable alternative to the MBI-GS.

While the sample sizes were low with regard to the hairstylist and fire department samples, I had acceptable item-to-participant ratios that permitted the use of factor analysis and structural equations modeling. Moreover, the sample sizes were acceptable for conducting comparisons between alternative models.

STUDY 2

Study 2 was conducted to explore the relationship of politics to burnout and the role of perceptions of performance appraisal in the perceptions of politics. The objective of this study was to determine the effect of perceptions of politics on burnout (see Hypothesis 3), the effect of perceptions of politics specific to the performance appraisal setting on burnout (see Hypothesis 4), and the role of trust in appraisal systems in burnout (see Hypothesis 5).

Method

Participants & Procedure

Employed students. A total of 405 employed students from introductory psychology and introductory management courses completed a survey that included measures of engagement, burnout, and other organizational outcomes. For completing the survey, they were offered credit that partially fulfilled a course requirement of participation in research. The students completed the surveys in large group sessions.

Hairstylists. Following the survey, some of the students were given a similar survey and asked to give it to their hairstylist to complete. The hairstylists returned the surveys directly to the researcher via a postage-paid envelope that was provided with the survey. Of the 265 surveys that were distributed to the hairstylists by students, 85 usable surveys were returned, for a response rate of 32 percent. Because many of the hairstylists were self-employed or contract workers that did not received performance appraisals, I did not ask them to complete the surveys about their perceptions of performance appraisal; however, they did complete the scale that assess their general perceptions of politics in the organization.

Fire department employees. Surveys were distributed to the fire department staff in group sessions. Of the 91 employees of the fire department, two declined to participate, resulting in a sample of 89 respondents. Eighty-five surveys were returned, for a response rate of 95 percent. The measures utilized for this study were part of a larger packet of research measures that were utilized as part of a larger project with the fire department.

Measures

Perceptions of politics in the organization and perceptions of the performance appraisal system were operationalized with three published measures. General perceptions of politics in the organization were measured using the Perceptions of Politics Scale (POPS; Kacmar & Carlson, 1997), a 13-item measure. The Questionnaire For Perceived Political Considerations in Performance Appraisal (Tziner, Latham, Price, & Haccoun, 1996) is a 25-question measure designed to assess perceptions of politics in a performance appraisal setting. The Trust in Appraisal Systems (TAPS; Bernardin & Orban, 1990) survey is a 15-item measure designed to investigate the extent to which the participant trusts the fairness of the organization's performance appraisal system.

Results

The means, standard deviations, internal consistency estimates and interscale correlations for the Study 2 measures can be found in Table 4. I conducted a multiple regression analysis, including all three predictor scales (Perceptions of Politics, Trust in Appraisal Systems, and Perceptions of Politics in Performance Appraisal) and treating each burnout subscale independently, as has been recommended in the burnout literature. In the case of the predictor variables, I utilized tests that controlled for the other predictor

variables. The results of the regression analysis can be found in Table 5. The analyses indicate that across the three samples and accounting for the other predictors, general perceptions of politics were reliable predictors of all three dimensions of burnout, where higher perceptions of politics were positively associated with higher burnout, supporting Hypothesis 3. On the other hand, neither Trust in Appraisal Systems and Perceptions of Politics in Performance Appraisal were reliable predictors of burnout (once general perceptions of politics were accounted for). Overall, it appears that while politics are related to burnout, it is a general perception of politics that is most closely linked to burnout.

There are a number of explanations for the findings of this study. The most clear explanation comes from literature on the specification of general or specific attitudes and behaviors (Azjen & Fishbein, 1977). Burnout is generally considered a general work-related experience. While it is broken into three components, the three components maintain a general nature. As noted by Azjen and Fishbein (1977), one is more likely to find a relationship between variables that measure phenomenon with the same specificity. In this case, burnout and perceptions of politics are both general, and as such, one would be more likely to expect perceptions of politics to be associated with burnout than the other two, more specific, constructs.

Following this line of thinking, one might expect that the more specific constructs related to the performance appraisal system would "feed into" the more general perception of politics, which would in turn lead to burnout. To test this alternative hypothesis, I conducted a mediated multiple regression analysis (Baron & Kenny, 1986), where general perceptions of politics served as a mediator to the perceptions of politics in

the performance appraisal/burnout relationship. The basic idea behind this model is that perceptions of politics in performance appraisal feed into more general perceptions of politics, which have a direct influence on burnout.

Mediated multiple regression involves comparison of the results of three regression equations (Baron & Kenny, 1986). The first equation regresses the mediator on the independent variable. The second equation regresses the dependent variable on the independent variable. The third step regresses the dependent variable on both the independent variable and the mediator. Mediation is established when the following conditions hold: 1) the independent variable affects the mediator in the first equation; 2) the independent variable affects the dependent variable in the second equation; and 3) the effect of the independent variable on the dependent variable is less in the third equation than the second one.

The mediated regression results for perceptions of politics are reported in Table 6. The results indicate that in general, the mediated model was supported, where perceptions of politics fully mediated the relationship between perceptions of politics in performance appraisal and burnout in nearly all of the cases (across burnout components and across samples). As such, this test suggests that to best understand the relationship between politics and burnout, one must consider the more specific political perceptions as feeding into more general political perceptions, which in turn lead to increases in burnout.

Discussion

This study found that the most direct link between perceptions of politics and burnout exists when considering general perceptions of politics. While the measures of trust in appraisals and perceptions of politics in the performance appraisal were not

directly related to burnout, perceptions of politics in the performance appraisal was positively associated with perceptions of politics, suggesting a mediation effect of perceptions of politics.

A limitation of this study was the inclusion of only politics measures as a predictor of burnout. While the focus of the study was on politics perceptions, there are numerous other correlates of burnout that were not included (c.f., Lee & Ashforth, 1996), and could have influenced the degree to which politics were related to burnout. Indeed, the maximum variance accounted for by including the measures of perceptions of politics (both general and in performance appraisal) and trust in appraisal systems was only about 26 percent, which suggests there are other factors that are involved in the prediction of burnout.

Nonetheless, this study suggests that politics do share a considerable amount of variance with burnout scores. Given that politics and burnout are both so pervasive in organizations, it is perhaps not surprising that they occur together at a relatively high rate. To better understand how the two are related, one can look to Ferris' (Ferris et al., 1989) model of perceptions of politics, which suggests that politics tends to cause anxiety for individuals perceiving politics. Most models of occupational stress posit that anxiety (a stressor) leads to strain and the need for coping mechanisms (specifically, burnout). As such, politics can be understood in the traditional stress-strain models of occupational health psychology (e.g., Karasek, 1979).

An understanding of politics and burnout in the broader realm of occupational health psychology leads to possibilities for future research. While this study has suggested a link between politics and burnout, more research is needed to fully elucidate

the processes by which politics influence burnout. I have suggested that one manner in which to understand the relationship is through anxiety in the stressor-strain process.

Understanding how politics and burnout are related is important for organizations, particularly given the extent to which they occur. More research is needed that addresses the practical matter of reducing perceptions of politics in organizations. That research must specifically address both the antecedents and consequences of politics in order to better understand how politics fits into the broader spectrum of organizational life.

STUDY 3

Study 3 was conducted with the cooperation of a not-for-profit human services organization that specializes in services for families and the community. It was designed to assess the relationship between burnout and job performance (see Hypothesis 6). All employees of the organization were included in the sample, including those who worked directly with clients and those that did not (i.e., accountants, clerical staff).

Method

Participants & Procedure

Surveys were distributed to the employees of the not-for-profit organization with one of their biweekly paychecks. They were given a postage-paid envelope for the return of the informed consent form and survey. Of the 110 surveys distributed in the organization, 36 were returned, for a response rate of 33 percent. Three respondents were contract workers who did not receive performance appraisals directly from the not-for-profit organization, which reduced the final sample size to 33. The measures utilized for this study were part of a larger packet of research measures.

Measures

Burnout. To measure burnout, the Maslach Burnout Inventory-General Survey (MBI-GS; Maslach, Jackson, & Leiter, 1988) was utilized. The MBI-GS is a 16-item survey that measures burnout on three dimensions—emotional exhaustion, depersonalization, and personal accomplishment (reverse coded). I used the MBI-GS (as opposed to the more client-based MBI-Human Services Scale) because I intended to include all employees of the organization, not just those with direct client contact.

Motivation. To measure motivation, the participants completed the Motivation Orientation Inventory (Barrick, Stewart, & Piotrowski, 2002), a 31-item measure designed to assess the degree to which status, accomplishment, and communion (social) drive a person's behavior. Only the status and accomplishment striving subscales were used in this study.

Job performance. Performance was measured by utilizing the participant's most recent performance appraisal ratings. The performance appraisal information was collected directly from the employee's personnel file (permission was granted by the employee as part of informed consent). It consisted of Likert-type scale scores on nine performance dimensions. I aggregated the subscale scores to create a mean score of job performance. Approximately six months passed between the completion of the burnout inventories and collecting the performance appraisals from the personnel files.

Results

The means, standard deviations, Cronbach's alphas, and correlations for Study 3 instruments are presented in Table 7. Internal consistencies were high for all of the instruments utilized. Mediated multiple regression (Baron & Kenny, 1986) was used to

test the hypothesis (6) that the relationship between burnout and job performance will be mediated by motivation. The results of the mediated regression are reported in Tables 8 and 9.

For the emotional exhaustion component of burnout, the results presented in the first step of the mediation analysis indicated that emotional exhaustion was negatively related to accomplishment striving ($\beta = -.54, p < .0001$). The results from the second step indicate that emotional exhaustion was negatively associated with performance ratings ($\beta = -.33, p < .001$). The results from the third step show that when accomplishment striving is accounted for in the regression, emotional exhaustion was not significantly associated with performance ratings ($\beta = -.15$, ns); however, accomplishment striving remained significantly negatively related to performance ratings ($\beta = .28, p < .05$). These findings suggest that the relationship between emotional exhaustion and job performance is fully mediated by accomplishment striving, providing support for the motivation mediation model in Figure 1.

For the cynicism component of burnout, the results presented in the first step of the mediation analysis indicated that cynicism was negatively related to accomplishment striving ($\beta = -.66, p < .0001$). The results from the second step indicate that cynicism was negatively associated with performance ratings ($\beta = -.38, p < .01$). The results from the third step show that when accomplishment striving is accounted for in the regression, cynicism was not significantly associated with performance ratings ($\beta = -.17$, ns); however, accomplishment striving remained significantly negatively related to performance ratings ($\beta = .30, p < .05$). These findings suggest that the relationship between cynicism and job performance is fully mediated by accomplishment striving,

providing support for the motivation mediation model in Figure 1.

For the personal efficacy component of burnout, the results presented in the first step of the mediation analysis indicated that personal efficacy was positively related to accomplishment striving (β =.50, $p < .0001$). The results from the second step indicate that personal efficacy was not associated with performance ratings (β = .14, *ns*). The results from the third step show that when accomplishment striving is accounted for in the regression, personal efficacy was not significantly associated with performance ratings (β = -.09, ns); however, accomplishment striving remained significantly negatively related to performance ratings (β = .43, $p < .05$). Because of the non-significant relationship between personal efficacy and supervisor ratings, these findings do not suggest that the relationship between personal efficacy and job performance is fully mediated by accomplishment striving. However, they are suggestive of a link between accomplishment striving and personal efficacy.

For the emotional exhaustion component of burnout, the results presented in the first step of the mediation analysis indicated that emotional exhaustion was negatively related to status striving (β = -.35, $p < .01$). The results from the second step indicate that emotional exhaustion was negatively associated with performance ratings (β = -.33, $p <$ .01). The results from the third step show that when status striving is accounted for in the regression, emotional exhaustion was not significantly associated with performance ratings (β = -.09, ns); however, status striving remained significantly negatively related to performance ratings (β = .48, $p < .05$). These findings suggest that the relationship between emotional exhaustion and job performance is fully mediated by status striving, providing support for the motivation mediation model in Figure 1.

For the cynicism component of burnout, the results presented in the first step of the mediation analysis indicated that cynicism was negatively related to status striving ($\beta = -.30, p < .05$). The results from the second step indicate that cynicism was negatively associated with performance ratings ($\beta = -.39, p < .01$). The results from the third step show that when status striving is accounted for in the regression, cynicism was significantly associated with performance ratings ($\beta = -.21, p < .05$); additionally, status striving remained significantly negatively related to performance ratings ($\beta = .48, p < .05$). These findings suggest that the relationship between cynicism and job performance is partially mediated by status striving, providing partial support for the motivation mediation model in Figure 1.

For the personal efficacy component of burnout, the results presented in the first step of the mediation analysis indicated that personal efficacy was not related to status striving ($\beta = .17$, *ns*). The results from the second step indicate that personal efficacy was not associated with performance ratings ($\beta = .14$, *ns*). The results from the third step show that when status striving is accounted for in the regression, personal efficacy was not significantly associated with performance ratings ($\beta = .02$, *ns*); however, status striving remained significantly negatively related to performance ratings ($\beta = .54, p < .001$). Because of the non-significant relationship between personal efficacy and supervisor ratings and personal efficacy and status striving, these findings do not suggest that the relationship between personal efficacy and job performance is mediated by status striving.

Discussion

The results of Study 3 suggest that motivation was indeed a mediator of the burnout-job performance relationship, with the exception of the personal efficacy burnout component. These findings were consistent across both accomplishment striving and status striving conceptualizations of motivation.

It is not surprising that the personal efficacy component of burnout yielded a different result than both the emotional exhaustion and cynicism components. Numerous studies have found that personal efficacy demonstrates vastly different relationships with external variables, leading some to conclude that it is not a core component of burnout (Green, Walkey & Taylor, 1991; Lee & Ashforth, 1996; Schaufeli & Enzmann, 1998).

An advantage of this study was the predictive nature of the burnout and job performance scores. Because of the time lag between when the burnout scales and the performance ratings were completed, I have greater confidence in the causal ordering of those variables. I should note, however, that the burnout and motivation scales were completed at the same time, thus representing cross-sectional data and limiting our ability to make causal statements with these variables.

During the study, 26 employees in the original sample of 110 left their positions with the organization. It is difficult to determine whether their attrition influenced the results; however, one might speculate, based on the burnout literature, that those who were more highly burned out would be more likely to quit their jobs. As such, the attrition may have restricted the range of burnout scores that I was able to obtain, in effect making these results more conservative.

STUDY 4

In order to address the limitations of Study 3 and allow for greater generalization of the results, I conducted a replication and extension of Study 3 in the context of a United States federal fire department. Study 4 allowed for the replication of Study 3 in a different context and extends the performance rating data to include both supervisor and self-ratings of job performance.

Method

Participants & Procedure

This study was conducted with the cooperation of the professional staff at a federal fire department (i.e., firefighters and management). Surveys were distributed to the fire department staff in group sessions and were returned directly to the investigator. Of the 91 employees of the fire department, two declined to participate, allowing for a potential sample of 89 respondents. Eighty-five surveys were returned, for a response rate of 95 percent. Of the 85 returned surveys, four did not complete the defensiveness scale, resulting in a sample size of 81. Again, the measures utilized for this study were part of a larger packet of research measures.

Measures

Burnout. To measure burnout, two established measures were utilized. The Maslach Burnout Inventory-General Survey (MBI-GS; Maslach, Jackson, & Leiter, 1988) is a 16-item survey that measures burnout on three dimensions—emotional exhaustion, depersonalization, and personal accomplishment (reverse coded so that all three scales were in the same direction). The Oldenburg Burnout Inventory (OLBI;

Demerouti, Bakker, Kantas, & Vardakou, 2002) is a more recent inventory that measures burnout on two dimensions—exhaustion and disengagement—using 16 items.

I chose to utilize an additional measure of burnout in Study 4 for a number of reasons. First, if similar patterns were found in the data for corresponding data from the burnout components as measured by each burnout measure (for example, if the findings using the MBI emotional exhaustion scale were corroborated by the OLBI exhaustion scale), it would allow for greater confidence in the proposed relationship between burnout, motivation, and job performance. Furthermore, as a new measure, there is relatively little research on the psychometric properties and construct validity of the OLBI and the OLBI has never been utilized in an American sample. This study will provide an opportunity to further investigate the psychometric properties of the OLBI.

Motivation. To measure motivation, the participants completed the Motivation Orientation Inventory (Barrick, Stewart, & Piotrowski, 2002), a 31-item measure designed to assess the degree to which status, accomplishment, and communion (social) drive a person's behavior. As in Study 3, only the status and accomplishment striving subscales were utilized in this study.

Job performance. In the fire department sample, the employees were asked to self-report the ratings they received from their supervisor on their most recent performance appraisal. They were asked to provide ratings on each of the nine performance dimensions that comprised their performance appraisal. A mean aggregate score of the dimensions was used as a supervisor job performance rating score. The fire department employees were also asked to provide self-ratings for each of the nine

performance dimensions. These ratings were also aggregated to form a mean self-job performance rating score.

Results

The means, standard deviations, internal consistency estimates for each scale, and interscale correlations for Study 4 instruments are presented in Table 10. Internal consistencies were high for all of the instruments utilized. As was the case in Study 3, mediated multiple regression was used to test the hypothesis that the relationship between burnout and job performance is mediated by motivation. The mediated regression results can be found in Tables 11-14.

For the emotional exhaustion component of burnout, the results presented in the first step indicate that emotional exhaustion was negatively related to accomplishment striving when measured by the MBI-GS (β = -.57, p < .0001) and the OLBI (β = -.75, p < .0001). The results from the second step indicate that emotional exhaustion was negatively associated with supervisor performance ratings when measured by the MBI-GS (β = -.55, p < .001) and the OLBI (β = -.69, p < .0001). The results from the third step show that when accomplishment striving is accounted for in the regression, emotional exhaustion was significantly associated with supervisor performance ratings as measured by MBI-GS (β = -.34, p < .001), but was not associated with performance when measured with the OLBI (β = -.33, *ns*); however, accomplishment striving remained significantly negatively related to supervisor performance ratings in the equations accounting for the MBI-GS (β = .37, p < .05) and the OLBI (β = .48, p < .001). These findings suggest that the relationship between emotional exhaustion and job performance is at least partially mediated by accomplishment striving, providing partial support for the

mediation model presented in Figure 1.

For the cynicism/disengagement component of burnout, the results presented in the first step indicate that cynicism/disengagement was negatively related to accomplishment striving when measured by the MBI-GS ($\beta = -.53, p < .0001$) and the OLBI ($\beta = -.73, p < .0001$). The results from the second step indicate that cynicism/disengagement was negatively associated with supervisor performance ratings when measured by the MBI-GS ($\beta = -.62, p < .001$) and the OLBI ($\beta = -.66, p < .0001$). The results from the third step show that when accomplishment striving is accounted for in the regression, cynicism/disengagement was significantly associated with supervisor performance ratings as measured by MBI-GS ($\beta = -.41, p < .001$), but was not associated with performance when measured with the OLBI ($\beta = -.28$, *ns*); however, accomplishment striving remained significantly negatively related to supervisor performance ratings in the equations accounting for the MBI-GS ($\beta = .40, p < .01$) and the OLBI ($\beta = .52, p < .01$). These findings suggest that the relationship between cynicism/disengagement and job performance is at least partially mediated by accomplishment striving, providing partial support for the mediation model presented in Figure 1.

For the personal efficacy component of burnout, the results presented in the first step indicate that personal efficacy was positively related to accomplishment striving ($\beta = .55, p < .0001$). The results from the second step indicate that personal efficacy was positively associated with supervisor performance ratings ($\beta = .42, p < .001$). The results from the third step show that when accomplishment striving is accounted for in the regression, personal efficacy was not significantly associated with supervisor

performance ratings (β = .02, *ns*); however, accomplishment striving remained significantly negatively related to supervisor performance ratings (β = .71, $p < .001$). These findings suggest that the relationship between personal efficacy and job performance is fully mediated by accomplishment striving, providing support for the mediation model presented in Figure 1.

For the emotional exhaustion component of burnout, the results presented in the first step indicate that emotional exhaustion was negatively related to status striving when measured by the MBI-GS (β = -.45, $p < .0001$) and the OLBI (β = -.64, $p < .0001$). The results from the second step indicate that emotional exhaustion was negatively associated with supervisor performance ratings when measured by the MBI-GS (β = -.55, $p < .001$) and the OLBI (β = -.69, $p < .0001$). The results from the third step show that when status striving is accounted for in the regression, emotional exhaustion was significantly associated with supervisor performance ratings when measured by MBI-GS (β = -.39, $p < .01$), and with the OLBI (β = -.42, $p < .01$); additionally, status striving remained significantly negatively related to supervisor performance ratings in the equations accounting for the MBI-GS (β = .35, $p < .05$) and the OLBI (β = .43, $p < .01$). These findings suggest that the relationship between emotional exhaustion and job performance is at least partially mediated by status striving, providing partial support for the mediation model presented in Figure 1.

For the cynicism/disengagement component of burnout, the results presented in the first step indicate that cynicism/disengagement was negatively related to status striving when measured by the MBI-GS (β = -.42, $p < .0001$) and the OLBI (β = -.57, $p < .0001$). The results from the second step indicate that cynicism/disengagement was

negatively associated with supervisor performance ratings when measured by the MBI-GS (β = -.62, p < .001) and the OLBI (β = -.66, p < .0001). The results from the third step show that when status striving is accounted for in the regression, cynicism/disengagement was significantly associated with supervisor performance ratings when measured by MBI-GS (β = -.45, p < .001), and when measured with the OLBI (β = -.40, p < .01); however, status striving remained significantly negatively related to supervisor performance ratings in the equations accounting for the MBI-GS (β = .39, p < .01) and the OLBI (β = .46, p < .01). These findings suggest that the relationship between cynicism/disengagement and job performance is at least partially mediated by status striving, providing partial support for the mediation model presented in Figure 1.

For the personal efficacy component of burnout, the results presented in the first step indicate that personal efficacy was positively related to status striving (β = .53, p < .001). The results from the second step indicate that personal efficacy was positively associated with supervisor performance ratings (β = .42, p < .05). The results from the third step show that when status striving is accounted for in the regression, personal efficacy was not significantly associated with supervisor performance ratings (β = .06, *ns*); however, status striving remained significantly negatively related to supervisor performance ratings (β = .69, p < .001). These findings suggest that the relationship between personal efficacy and job performance is fully mediated by status striving, providing support for the mediation model presented in Figure 1.

For the emotional exhaustion component of burnout, the results presented in the first step indicate that emotional exhaustion was negatively related to accomplishment

striving when measured by the MBI-GS (β = -.57, p < .0001) and the OLBI (β = -.75, p < .0001). The results from the second step indicate that emotional exhaustion was negatively associated with self-performance ratings when measured by the MBI-GS (β = -.23, p < .001) and the OLBI (β = -.30, p < .0001). The results from the third step show that when accomplishment striving is accounted for in the regression, emotional exhaustion was not significantly associated with self performance ratings as measured by MBI-GS (β = -.16, *ns*) or with the OLBI (β = -.17, *ns*); additionally, accomplishment striving was not significantly related to self performance ratings in the equations accounting for the MBI-GS (β = .13, *ns*) and the OLBI (β = .17, *ns*). These findings suggest that while emotional exhaustion is related to both accomplishment striving and self-ratings of performance, it does not fit a mediation pattern.

For the cynicism/disengagement component of burnout, the results presented in the first step indicate that cynicism/disengagement was negatively related to accomplishment striving when measured by the MBI-GS (β = -.53, p < .0001) and the OLBI (β = -.73, p < .0001). The results from the second step indicate that cynicism/disengagement was negatively associated with self-performance ratings when measured by the MBI-GS (β = -.28, p < .001) and the OLBI (β = -.26, p < .01). The results from the third step indicate that when accomplishment striving is accounted for in the regression, cynicism/disengagement was significantly associated with self performance ratings as measured by MBI-GS (β = -.22, p < .001), but was not associated with performance when measured with the OLBI (β = -.11, *ns*); additionally, accomplishment striving was not significantly negatively related to self performance ratings in the equations accounting for the MBI-GS (β = .12, *ns*) and the OLBI (β = .21,

ns). These findings suggest that while cynicism is related to both accomplishment striving and self-ratings of performance, it does not fit a mediation pattern.

For the personal efficacy component of burnout, the results presented in the first step indicate that personal efficacy was positively related to accomplishment striving (β = .55, $p < .0001$). The results from the second step indicate that personal efficacy was not associated with self-performance ratings (β = .19, *ns*). The results from the third step indicated that when accomplishment striving is accounted for in the regression, personal efficacy was not significantly associated with self performance ratings (β = .04, *ns*); however, accomplishment striving remained significantly negatively related to self performance ratings (β = .27, $p < .01$). Because of the non-significant relationship between personal efficacy and self-ratings, these findings do not suggest that the relationship between personal efficacy self-ratings is mediated by accomplishment striving. However, they are suggestive of a link between accomplishment striving and personal efficacy.

For the emotional exhaustion component of burnout, the results presented in the first step indicate that emotional exhaustion was negatively related to status striving when measured by the MBI-GS (β = -.45, $p < .0001$) and the OLBI (β = -.64, $p < .0001$). The results from the second step indicate that emotional exhaustion was negatively associated with self-performance ratings when measured by the MBI-GS (β = -.23, $p < .001$) and the OLBI (β = -.30, $p < .0001$). The results from the third step show that when status striving is accounted for in the regression, emotional exhaustion was not significantly associated with self performance ratings as measured by MBI-GS (β = -.14, *ns*) or with the OLBI (β = -.15, *ns*); additionally, status striving was not significantly related to self performance

ratings in the equations accounting for the MBI-GS ($\beta = .19$, *ns*), but was significantly related when measuring burnout with the OLBI ($\beta = .22$, $p < .05$). These findings suggest partial support for the mediation model, particularly when considering emotional exhaustion as measured by the OLBI.

For the cynicism/disengagement component of burnout, the results presented in the first step indicate that cynicism/disengagement was negatively related to status striving when measured by the MBI-GS ($\beta = -.42$, $p < .0001$) and the OLBI ($\beta = -.57$, $p < .0001$). The results from the second step indicate that cynicism/disengagement was negatively associated with self-performance ratings when measured by the MBI-GS ($\beta = -.28$, $p < .001$) and the OLBI ($\beta = -.26$, $p < .01$). The results from the third step indicate that when status striving is accounted for in the regression, cynicism/disengagement was significantly associated with self performance ratings as measured by MBI-GS ($\beta = -.21$, $p < .001$), but was not associated with performance when measured with the OLBI ($\beta = -.12$, *ns*); additionally, status striving was not significantly negatively related to self performance ratings in the equations accounting for the MBI-GS ($\beta = .18$, *ns*), but the relationship was significant when accounting for the OLBI ($\beta = .25$, *ns*). These findings suggest partial support for the mediation model, particularly when considering emotional exhaustion as measured by the OLBI.

For the personal efficacy component of burnout, the results presented in the first step indicate that personal efficacy was positively related to status striving ($\beta = .53$, $p < .0001$). The results from the second step indicate that personal efficacy was not associated with self-performance ratings ($\beta = .19$, *ns*). The results from the third step indicated that when status striving is accounted for in the regression, personal efficacy

was not significantly associated with self performance ratings ($\beta = .03$, *ns*); however, status striving remained significantly negatively related to self performance ratings ($\beta = .31$, $p < .01$). Because of the non-significant relationship between personal efficacy and self-ratings, these findings do not suggest that the relationship between personal efficacy self-ratings is mediated by status striving. However, they are suggestive of a link between status striving and personal efficacy.

Discussion

The findings of Study 4 offer support, in the context of supervisor ratings, for the hypotheses that burnout is negatively related to job performance and that the relationship between burnout and job performance is at least partially mediated by motivation. These findings did not hold up when considering self-ratings of performance.

The differences between supervisor and self-ratings of performance are noteworthy and can be better understood by considering the context of the organization. This study was conducted at the request of the organization to, in part, investigate the levels of stress and burnout among their employees and their effect on job performance. I found that many of the employees did not think the performance appraisal system was fair and there were very high perceptions of politics in the appraisal and promotion system. As a result, many of the employees believed that their performance appraisals should be higher than they were. Given that there was some evidence for leniency biases (where scores all were in the "above average" range) and halo biases (where there is very little variance in the scores) in the supervisor performance ratings, employees inflating their appraisals led to a significant reduction in variance among self-ratings as well as something of a ceiling effect. This is evident when one considers the data regarding self-

ratings in Table 10. Note that self-ratings had nearly half the standard deviation of supervisor ratings, and moreover, a higher mean that was much closer to the maximum possible mean (which was nine). Taken together, the reduced variability and ceiling effect would make it much more difficult to discern meaningful relationships among variables.

One could argue that the nature in which I collected the supervisor performance appraisal information would result in inaccuracies in that information. Collecting the performance appraisal information directly from the employees' personnel files (as I had done in Study 3) would be more ideal; however, a number of constraints made such a data collection technique impossible. First, the organization I collected the data in refused to allow access to the personnel files. Second, I wanted to maintain the anonymity of the other parts of the survey (particularly the burnout scales); using personnel files would have required that I determine some way to match survey data with an employee's personnel file, thereby compromising the anonymity of the participants, which could have led to other biases in their self-reports.

To minimize the negative effects of self-report supervisor ratings, I asked the employees to provide a self-rating. This was, of course, part of the study design as well, but helps to address the issue at hand. By allowing the participants the opportunity to report their self-rating (or how they believe they *should* have been rated), it reduces the need to inaccurately report the ratings given by the supervisor. Furthermore, given that the ratings were provided anonymously, there would have been reduced demand to inflate ratings that might be the case if I were able to link ratings to the participant.

Finally, I am able to contrast the findings of Study 4 with the findings of Study 3, where actual performance appraisal information was collected directly from personnel files.

A secondary objective of this study was to investigate the psychometric properties of the OLBI to help develop construct evidence for the scale. In general, the findings of this study support the use of the OLBI. The OLBI was internally consistent (α = .88 for the exhaustion scale and α = .89 for the disengagement). Furthermore, the OLBI subscales correlated positively with their corresponding MBI subscales, with significantly lower correlations for the non-corresponding subscales. Finally, the OLBI demonstrated most of the same relationships with motivation and job performance than the MBI did, suggesting that the relationships with outside variables were highly consistent between the two burnout measures. The OLBI was created, in part, to address some of the psychometric concerns with the MBI (i.e., the use of only negatively worded items in the emotional exhaustion and cynicism scales rather than mixing positively- and negatively-worded items; Demerouti et al., 2001). Given those improvements, and the evidence provided by the present study and Study 1, I would suggest that the OLBI is a suitable measure for burnout.

Taken together, Study 3 and Study 4 suggest that the relationship between burnout and job performance is mediated by motivation. This is an important finding as it helps to clarify our understanding of how burnout is related to job performance in the context of theories of job performance. Moreover, these findings were reasonably consistent across two measures of burnout (that included three components of burnout) and two components of motivation.

STUDY 5

Study 5 was conducted to investigate the psychometric properties of the Utrecht Engagement Scale. As was noted in the introduction, the notion of engagement has become an important emerging construct in the burnout literature; however, there has been very little research on its measurement. This study seeks to fill that void by providing evidence for the factorial (see Hypothesis 8) and construct validity of the Utrecht Engagement Scale vis-à-vis its counterpart in the measurement of burnout, the Maslach Burnout Inventory (see Hypothesis 9). Moreover, Study 5 provides this evidence across three samples of varying occupational contexts (see Hypothesis 10).

Method

Participants and Procedure

Three diverse samples were utilized in the analyses: employed adult students, hairstylists, and the employees of a federal fire department (both firefighters and management). A total of 405 employed students from introductory psychology and introductory management courses completed a survey that included measures of engagement, burnout, and other organizational outcomes. For completing the survey, they were offered credit that partially fulfilled a course requirement to participate in research. The students completed the surveys in large group sessions.

Following the survey, some of the students were given a similar survey and asked to give it to their hairstylist to complete. The hairstylists returned the surveys directly to the researcher via a postage-paid envelope that was provided with the survey. Upon returning the survey, the students were given additional credit toward their research requirement and the hairstylists were entered in a drawing to win $100. Of the 265

surveys that were distributed to the hairstylists by students, 85 usable surveys were returned, for a response rate of 32 percent.

Surveys were distributed to the fire department staff in group sessions. Of the 91 employees of the fire department, two declined to participate, resulting in a sample of 89 respondents. Eighty-five surveys were returned, for a response rate of 95 percent. The measures utilized for this study were part of a larger packet of research measures that were utilized as part of a larger project with the fire department.

Measures

Engagement. Engagement was assessed using the current version of the Utrecht Engagement Scale (UES; Schaufeli et al., 2002). It contained 17 items designed to assess the three components of engagement: vigor, dedication, and absorption. Example items include "When I get up in the morning, I feel like going to work" (Vigor), "To me, my job is inspiring" (Dedication), and "When I am working, I forget everything else around me" (Absorption).

Burnout. To measure burnout, the Maslach Burnout Inventory-General Survey (MBI-GS; Maslach, Jackson, & Leiter, 1988) was utilized. The MBI-GS is a 16-item survey that measures burnout on three dimensions—emotional exhaustion, depersonalization, and personal accomplishment (reverse coded so that all three scales would be in the same direction). I chose the MBI-GS (over other forms of the MBI) because of its general nature. I wanted a scale that would apply to all three samples, and believed that the Human Services form of the MBI would not apply to all of the employed students or many of the employees of the fire department. Furthermore, there is ample evidence that the MBI-GS has similar factorial structure as the original forms of

the MBI and that it is psychometrically sound (Demerouti & Nachreiner, 1996; Kantas & Vassilaki, 1999; Maslach, Jackson, & Leiter, 1996; Schutte, Toppinen, Kalimo, & Schaufeli, 2000; Taris, Schreurs, & Schaufeli, 1999).

Results

The data analyses for this study involved two primary components: an analysis of the measurement model of the UES and an analysis of the discriminant and convergent validity of the UES and MBI-GS using a multi-trait, multi-method framework. The descriptive statistics for the MBI-GS and UES for all three samples can be found in Table 15.

Engagement Factor Analysis

As a first step in establishing evidence for the validity of the engagement measure, I tested the factorial validity of the scale. When Schaufeli et al. (2002; Bakker & Schaufeli, 1999) developed the scale, they intended for it to assess three components of engagement: vigor, dedication, and absorption. Their analyses supported this three-factor measurement model. I replicated their analysis in each sample, comparing the proposed three-factor model with two alternative models. The first alternative was a unidimensional model that assumed that all of the 17 items on the engagement scale would load onto one factor, presumably labeled engagement. The second alternative was a two-factor model. This model is derived from considering the burnout literature, which occasionally finds that burnout measures that are intended to assess three factors actually assess two factors—one core burnout factor that includes exhaustion and depersonalization and an additional personal efficacy factor. In the case of the engagement scale, the two-factor model would include a factor where all of the vigor and

dedication items loaded onto one factor, and all of the absorption factors loaded onto another factor.

Fit statistics for the three models across the three samples can be found in Table 16. The fit statistics were chosen to represent a wide variety of the most commonly utilized fit statistics in organizational research, with the recognition that multiple fit statistics should be reported in an structural equation modeling (SEM) setting. I gave particular emphasis to fit indicators that allowed for comparison across the alternative models.

In relative terms, comparing the three models across the three samples provides ample evidence to suggest that the proposed three factor model is the best fitting model for these data. It tends to have the most favorable χ^2 to degrees of freedom ratios; the lowest root mean squared error of approximations (RMSEA), Akaike's Information Criterion (AIC), and Bayesian Information Criterion (BIC); and it tends to have the highest goodness of fit index (GFI), comparative fit index (CFI) and Tucker-Lewis index (TLI) of the three models. It appears to fit best among the employed student sample; however, this may be due to a significantly higher sample size in that sample. Overall, I conclude that the three-factor model proposed by Schaufeli et al. (2002) is the best fitting measurement model for the UES.

MTMM Analysis

The analysis strategy utilized to assess the convergent and discriminant validity of the UES was the multi-trait, multi-method framework (MTMM), similar to that proposed by Campbell and Fiske (1959). However, rather than comparing correlation coefficients to estimate the validities, I have conducted MTMM analysis using SEM because it allows

for a more formal, empirical test of the convergence and divergence of the scales. Essentially, I tested three types of structural models: trait, method, and MTMM models.

Table 17 reports the fit statistics for the models tested in the MTMM analysis. They are broken down by model and sample. As was the case in the factor analysis above, the fit statistics were chosen to represent a wide variety of the most commonly utilized fit statistics in organizational research, with the recognition that multiple fit statistics should be reported in structural equation modeling (SEM) setting. I gave particular emphasis to fit indicators that allowed for comparison across the alternative models. Figure 3 visually displays the UES MTMM model.

The trait models are based on the traits that each instrument is designed to measure. These models are tested with the measures collapsed, that is, the individual items only load onto a trait and not a method. While the most intuitive trait model would be one with three factors (exhaustion/vigor, cynicism/dedication, and efficacy/absorption), Schaufeli et al. (2002) suggested that other trait models might fit better when comparing the MBI-GS and UES. As such, I also tested the three models they had tested. The first model I tested was the model suggested above, where the three traits are correlated (it is the right side of the MTMM model in Figure 3). The second model assumes there is one overall, "well-being" factor that accounts for the three latent traits. The final model that Schaufeli et al. (2002) tested was a cross between a trait and method model, where the positively worded traits (efficacy, vigor, dedication, and absorption) load onto one higher-order latent factor and the negatively worded traits (exhaustion and cynicism) load onto a second higher-order latent factor. Of the trait models, it is clear that the model proposed by Schaufeli et al. (2002) that divided the

negative and positive traits onto two higher-order factors was the best fitting trait model across the three samples (see Table 17).

The method models are based on the assumption that the structure in the data can be best determined by the actual measures rather than the traits they are believed to measure. These models are tested with the traits collapsed, that is, the individual items only load onto a method and not a trait (the left side of the MTMM model in Figure 2). The method model tested included correlated methods.

The final model, the MTMM model, assumes that each item is determined both by its trait and its method (see Figure 3). It combines the trait and method models, allowing the traits to correlate and the methods to correlate. Generally speaking, one would expect this model to offer the best fit if the measures offer convergence with regard to the traits but are also independent measures. To further test the discriminant validity of the measures, I tested the correlated method (unconstrained) MTMM model with one where the methods are correlated at 1.0 (constrained; c.f, Bagozzi, 1993). The assumption is that if the measures are indeed independent, a model that allows them to correlate, but not perfectly, should fit better than the constrained model. In the case of this study, when running the unconstrained model, the correlation between the methods was .69, indicated that there was quiet a bit of shared variance, but not complete overlap.

Overall, I found that the unconstrained MTMM model offered the best fit among the trait and method models. It tends to have the most favorable χ^2 to degrees of freedom ratios; the lowest root mean squared error of approximations (RMSEA), Akaike's Information Criterion (AIC), and Bayesian Information Criterion (BIC); and it tends to have the highest goodness of fit index (GFI), comparative fit index (CFI) and Tucker-

Lewis index (TLI) of the models. This finding offers support for the convergent and discriminant validity of the UES *vis-à-vis* the MBI-GS. The MTMM model suggests that while there is overlap in the traits that are measured by the two scales (as was predicted), there is acceptable divergence in the scales to suggest that they are uniquely measuring burnout and engagement.

Discussion

The results of this study offer further support for the construct validity of a measure of engagement. The factor analysis suggests that the proposed three-factor model of engagement best fits the data from all three samples. Moreover, the MTMM analysis of the convergence with the MBI-GS suggests that the unconstrained MTMM model best fits the data across the three samples, offering evidence for the convergent and discriminant validity of the UES. Taken together, this is further evidence of the construct validity of the UES as a measure of engagement.

This study offers some direction in the theoretical study of engagement. It underscores the need to look to burnout theory as a starting point for how engagement develops and erodes. Some research has already utilized this idea, particularly in the context of the job-demands/job-resources theory (c.f., Demerouti et al, 2001). This study suggests that such an approach is useful given the apparent measurement links between engagement and burnout. A useful starting point would be to examine models of stress and burnout (i.e., Cordes & Dougherty, 1993; Golembiewski, 1989; Golembiewski & Munzenrider, 1988; Golembiewski, Munzenrider, & Stevenson, 1986; Karasek, 1979; Leiter, 1989) and link those models to the processes underlying engagement.

With regard to methodology, it appears that the engagement scale developed by Schaufeli et al. (2002) is a psychometrically sound instrument for measuring engagement. This is important, particularly as psychology and organizational behavior increase emphasis on the more positive aspects of human experience. To better understand engagement and its implications, it will be important to both reliably and validly measure engagement.

In organizations, this study expands the constructs of burnout and engagement. The notion that burnout is the reduction or erosion of engagement leads to better solutions for eliminating burnout—specifically, by attempting to enhance engagement. one reduces burnout. Reviewing theoretical notions of engagement along with techniques for the reduction of burnout (Maslach & Goldberg, 1998; Maslach & Leiter, 1997) may improve the experience of employees.

In light of the findings presented, it is important that I address a number of limitations to this study. First, the use of cross-sectional data limits the ability to draw causal judgments based on the relationships among variables. Given the comparative and structural nature of the study, this is a modest concern.

We have noted that the models tested in this study generally did not fit. This is somewhat troubling, but perhaps not surprising given the number of variables included in the models (Bentler & Chou, 1987). While I could have tried to empirically develop models that would lead to a better fit (e.g., by using modification indices), I felt that such an approach would leave us on shaky theoretical ground, particularly given that modification indices based on local fit can be misleading and lead to incorrect respecification of models (Millsap, 2002). For that reason, I have focused on

comparisons between alternative models with strong theoretical groundings. As my interest was in theoretical and measurement development, this was justified.

As this is one of only a handful of studies that have investigated engagement, there is much to learn about this construct. One potential area of study is investigating the interaction of engagement with other organizational outcomes. There are a number of options here, from physiological symptoms (Shirom, Westman, Shamai, & Carrel, 1997) to organizational attitudes (Lee & Ashforth 1993a, 1993b, 1996; Leiter & Maslach, 1988) and from social comparison perceptions (Buunk & Schaufeli, 1993; Taris, Peeters, LeBlanc, Schreurs, & Schaufeli, 2001) to other important outcomes such as turnover and job performance (Cherniss, 1992; Keijsers, Schaufeli, LeBlanc, Zwerts, & Miranda, 1995; Westman & Etzion, 2001; Wright & Bonnett, 1997). As noted, there is a great deal of room for theoretical development with regard to engagement, and in particular, the processes by which one becomes engaged with his or her work and how one loses that engagement to become burned out.

GENERAL DISCUSSION

The purpose of my dissertation was to investigate a number of unexplored issues with regard to the measurement and processes underlying burnout and engagement. I found support for the use of the Oldenburg Burnout Inventory (OLBI) as a general measure of burnout. I also found that perceptions of politics influence burnout, and have suggested that future research explore their links to anxiety. I have found partial support for a model that suggests that burnout influences job performance through motivation. Finally, I have found support for the construct validity of the Utrecht Engagement Scale (UES), which helps to advance our understanding of the construct of engagement.

Implications for Practice

The findings reported have a number of implications for practice in organizations. First, the results of Study 2 suggest that perceptions of politics serve as an antecedent of burnout. While more research is needed to elucidate the specific processes underlying the relationship between politics perceptions and burnout, this research offers a solid starting point. Particularly in the current business environment where politics are so pervasive and has such significant effects on employees, organizations need to understand how politics influences their employees. This study documents a tangible effect of politics: burnout. Given the consequences of burnout for employees and organizations (c.f., Studies 3 and 4), politics may have serious, negative long-term effects on the functioning of both employees and organizations.

Study 3 and Study 4 clarify the relationship between burnout and job performance. In the past, organizations may have been less willing to address the issue of burnout in part because of inadequate evidence that it has a meaningful impact upon performance. The results of these studies offer further evidence that burnout has an important influence on performance and that its influence is at least partially related to the influence of motivation.

There are two general implications of Study 3 and Study 4 for organizations. First, if they want to improve job performance, they need to try to reduce burnout. This may be accomplished in any number of ways; a complete review of the manner in which burnout can be reduced is beyond the scope of this dissertation. Reducing burnout has positive consequences that go well beyond increasing motivation and job performance. Burnout is also related to physiological symptoms that could increase lost time on the job

and health-care-related organizational costs, turnover, absenteeism, and other important work-related consequences (Appels & Mulder, 1991; Cherniss, 1992, 1995; Melamed, Kushnir, & Shirom, 1992; Parker & Kulik, 1995; Shirom, Westman, Shamai, & Carel, 1997).

As a second general implication of this research for organizations, this research affirms the idea that motivation has a direct influence on job performance. Even in situations where burnout cannot be reduced, organizations may still influence job performance through motivation. Motivation theorists have suggested a multiplicity of mechanisms for increasing motivation, including increasing equity perceptions (Adams, 1965), increasing linkages between ability perceptions, reward attainability, and the value of the rewards (Vroom, 1964), or appropriate job design (Hackman & Oldham, 1976), among others.

As an extension to the burnout-motivation discussion, it would be interesting to explore the relationships between leadership and burnout. Motivation and leadership have long been linked in the literature (e.g., path-goal theory of leadership and expectancy theory of motivation; substitutes for leadership theory and job design); to this point, the research linking burnout and leadership has been limited (see Becker & Halbesleben, 2003 and Seltzer & Numerof, 1988 for notable exceptions). One might expect that the role of leadership in the burnout-performance relationship would be similar to that of motivation. While research is needed to substantiate such a claim, it provides an interesting new line of research that further ties the organization to burnout (c.f., Maslach & Leiter, 1997) with important implications for how organizations operate.

Implications for Burnout Theory and Research

Taken together, these five studies make a number of significant contributions to our understanding of the measurement and process of burnout.

Measurement. Study 1 offers validation evidence for an alternative measure of burnout that is suitable across occupational groups, the Oldenburg Burnout Inventory (OLBI). For over 20 years, researchers have been utilizing the Maslach Burnout Inventory (MBI) as the primary operationalization of burnout despite potential problems with the psychometric properties of the scale (e.g., a lack of balance of positive and negative items). The OLBI addresses the limitations of the MBI and offers independence of occupational context. My research found that the OLBI fits the two-factor structure proposed by its designers and offers reasonable construct validity vis-à-vis the MBI-GS.

Study 5 provides similar validation evidence for the sole measure of engagement, the Utrecht Engagement Scale (UES). This serves as an important contribution to the study of engagement, as it offers support for the operationalization of engagement via the UES. A better understanding of the psychometric properties of the UES will allow researchers to engage in more meaningful study of the process of engagement in organizational settings.

Burnout Theory. Study 2 contributes to our understanding of burnout theory through its ties to perceptions of politics. While the antecedents of burnout have been widely studied, research has not adequately addressed the role of politics perceptions in burnout. This is surprising, given the pervasiveness of both politics and burnout and their apparent theoretical links. Study 2 offers a starting point for this line of research; more research is needed to fully elucidate the processes that underlie the perceptions of

politics-burnout relationship, particularly research that ties them to anxiety and stress in the context of stressor-strain relationships.

Studies 3 and 4 significantly advance our understanding of the consequences of burnout by considering the burnout-job performance relationship in the context of theory. In the past, this has not been the case, and has made it very difficult for researchers to fully understand how burnout and job performance are linked. These findings also underscore the need to consider burnout not as an end state, but as leading to other important organizational outcomes. In doing so, these studies emphasize the importance of investigating burnout's relationship to other outcomes in the context of theories related to both burnout and the outcome under investigation.

Limitations

In considering the conclusions drawn from this research, it is important to recognize that there are limitations that temper one's confidence in the conclusions. The use of concurrent data, particularly in Studies 2 and 5, limit my ability to draw causal conclusions. While the concurrent data appear to support the hypotheses, future research that tracks burnout, perceptions of politics, motivation, and job performance over time would better substantiate the causal implications of each of those two studies. Future longitudinal research might also explore potential reciprocal relationships among the variables, for example, testing whether burnout leads to reduced job performance (through motivation), and whether that reduced job performance exacerbates burnout (and whether that relationship is mediated by motivation as well).

I further recognize that I have utilized performance ratings as a proxy for job performance in Studies 3 and 4, which restricts my ability to claim that burnout

influences job performance through motivation. I believe that by using two different collection techniques for supervisor ratings and adding self-ratings to the second study, I can have some confidence that burnout is indeed related to job performance. While they are not direct, "objective" indicators of job performance, they are, at the very least, related to the latent variable of job performance and as such can speak to the relationship between burnout and performance.

My use of somewhat small samples (excluding the student sample) in the structural equations modeling in Study 1 and Study 5 limits my confidence in the fit of the models tested. However, as I was interested primarily in model comparisons in both studies, this was less of an issue.

CONCLUDING REMARKS

This dissertation has studied a number of important aspects of the measurement and processes of burnout and engagement in four different samples in varied occupational contexts. I found evidence for the construct and factorial validity of both the OLBI and UES. Moreover, I found that perceptions of politics are associated with burnout. Finally, I found that burnout is associated with lower motivation and job performance ratings.

Taken together, my findings extend the burnout and engagement literature, both in our understanding of the measurement of burnout and engagement and in our understanding of the processes underlying burnout. While addressing important questions with regard to burnout, it also opens the door for additional research that researchers of occupational health psychology (including burnout and engagement) have not yet considered. Burnout is a serious, pervasive concern for organizations. Additional research that helps to further our understanding of burnout with the end goal of

improving the lives of employees and the functioning of organizations is a benefit not only to organization studies, but also to society more broadly.

REFERENCES

Adams, J.S. (1963). Toward and understanding of inequity. *Journal of Abnormal and Social Psychology, 67,* 422-436.

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin, 84,* 888-918.

Appels, A. & Mulder, P. (1991). Burnout as a risk factor for coronary heart disease. *Behavioral Medicine, 17,* 53-59.

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., & Schaufeli, W. B. (1999). *The Utrecht engagement scale.* Utrecht: Utrecht University.

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.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51,* 1173-1182.

Barrick, M. R., Stewart, G. L., Piotrowski, M. (2002). Personality and job performance: The mediating effect of motivation among sales representatives. *Journal of Applied Psychology, 87,* 43-51.

Becker, J. A. H., & Halbesleben, J. R. B. (2003). Defensive communication and burnout in the workplace: The mediating role of leader-member exchange. Paper submitted

for presentation at the annual meeting of the National Communication Association, Miami Beach, FL.

Bentler, P. M., & Chou, C. P (1987). Practical issues in structural modeling. *Social Methods & Research, 16,* 78-117.

Bernardin, H. J., & Orban, J. A. (1990). Leniency effect as a function of rating format, purpose for appraisal, and rater individual differences. *Journal of Business and Psychology, 5,* 197-211.

Bunnk, B. P., & Schaufeli, W. B. (1993). Burnout: A perspective from social comparison theory. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds). *Professional burnout: Recent developments in theory and research.* (pp. 53-73). Washington, DC: Taylor & Francis.

Burisch, M. (2002). A longitudinal study of burnout: The relative importance of dispositions and experiences. *Work & Stress, 16,* 1-17.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-mutimethod matrix. *Psychological Bulletin, 56,* 81-105.

Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. In M.D. Dunnette and L.M. Hough (Eds.) *Handbook of Industrial and Organizational Psychology* (2nd edition, Vol. 1, pp. 687-732). Palo Alto, CA: Consulting Psychologists Press.

Campbell, J. P. (1999). The definition and measurement of performance in the new age. In D. R. Illgen and E. D. Pulakos (Eds.). *The Changing Nature of Performance: Implications for Staffing, Motivation, and Development.*(pp. 399-430). San Francisco: Jossey-Bass.

Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In N. Schmitt, W. C. Borman, & Associates (Eds.). *Personnel Selection in Organizations* (pp. 71-98). San Francisco, CA: Jossey-Bass.

Cherniss, C. (1992). Long-term consequences of burnout: An exploratory study. *Journal of Organizational Behavior, 13,* 1-11.

Cherniss, C. (1995). *Beyond burnout.* New York: Routledge.

Cordes, C., & Dougherty, T. W. (1993). A review and an integration of research on job burnout. *Academy of Management Review, 18,* 621-656.

Cranswick, K. (1997). Burnout: A study of levels of burnout and factors responsible for burnout in rehabilitation workers. *Journal of Rehabilitation Administration, 21,* 119-134.

Daniel, S., & Rogers, M. L. (1981). Burn-out and the pastorate: A critical review with implications for pastors. *Journal of Psychology & Theology, 9,* 232-249.

Demerouti, E., Bakker, A.B., de Jonge, J., Janssen, P. P. M., & Schaufeli, W. B. (2001). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work Environment and Health, 27,* 279-286.

Demerouti, E., Bakker, A.B., Vardakou, I., &Kantas, A. (2002). The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *European Journal of Psychological Assessment, 18,* 296-307.

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., & Nachreiner, F. (1996). Reliability and validity of the Maslach Burnout Inventory: A critical approach. *Zeitschrift für Arbeitswissenschaft, 52,* 82-89.

Enzmann, D., Schaufeli, W. B., Janssen, P., Rozeman, A. (1998). Dimensionality and validity of the Burnout Measure. *Journal of Occupational and Organizational Psychology, 71,* 331-352.

Ferris, G. R., & Kacmar, K. M. (1992). Perceptions of organizational politics. *Journal of Management, 18,* 93-116.

Ferris, G. R., Russ, G. S., & Fandt, P. M. (1989). Politics in organizations. In R.A. Giacalone and P. Rosenfeld (Eds.). *Impression management in the organization* (pp. 143-170). Hillsdale, NJ: Lawrence Erlbaum.

Freudenberger, H. J. (1975). The staff burnout syndrome in alternative institutions. *Psychotherapy Theory, Research, and Practice, 12,* 72-83.

Gabris, G.T., & Ihrke, D. M. (2001). Does performance appraisal contribute to heightened levels of employee burnout? The results of one study. *Public Personnel Management, 30,* 157-172.

Gaines, J., & Jermier, J. M. (1983). Emotional exhaustion in a high stress organization. *Academy of Management Journal, 26,* 567-586.

Gioia, D. A., & Longenecker, C. O. (1994). Delving into the dark side: The politics of executive appraisal. *Organizational Dynamics, 22,* 47-58.

Golembiewski, R. T. (1989). A note on Leiter's study: Highlighting two models of burnout. *Group & Organizational Studies, 14,* 5-13.

Golembiewski, R. T., & Munzenrider, R. F. (1988). *Phases of burnout: Developments in concepts and applications*. New York: Praeger.

Golembiewski, R. T., Munzenrider, R. F., & Stevenson, J. G. (1986). *Stress in organizations: Toward a phase model of burnout.* New York: Praeger.

Green, D. E., Walkey, F. H., & Taylor, A. J. W. (1991). The three-factor structure of the Maslach Burnout Inventory. *Journal of Social Behavior and Personality, 6,* 453-472.

Hackman, R. J., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Decision Process, 16,* 250-279.

Halbesleben, J. R. B., Buckley, M. R., Sauer, N., & Salamon, N. (2002). The role of pluralistic ignorance in burnout. Manuscript submitted for publication.

Halbesleben, J. R. B., Buckley, M. R., & Wheeler, A. R. (2002). Overlooked and emerging issues in performance appraisal. In G. R. Ferris, M. R. Buckley, & D. B. Fedor (Eds.). *Human Resources Management: Perspectives, Context, Functions, and Outcomes* (4th ed.). Upper Saddle River, NJ: Prentice Hall.

Hobfoll, S. E. (1988). *The ecology of stress.* New York: Hemisphere.

Janssen, P. P. M., Schafeli, W. B., & Houkes, I. (1999). Work-related and individual determinants of three burnout dimensions. *Work & Stress. 13,* 74-86.

Kacmar, K. M., & Carlson, D. S. (1997). Further validation of the perceptions of politics scale (POPS): A multiple sample investigation. *Journal of Management, 23,* 627-658.

Kalliath, T. J. (2000). A test of the Maslach Burnout Inventory in three samples of heathcare professionals. *Work & Stress, 14,* 35-51.

Kalliath, T. J., O'Driscoll, M. P., & Gillespie, D. F. (1998). The relationship between burnout and organizational commitment in two samples of health professionals. *Work & Stress, 12,* 179-185.

Kantas, A., & Vassilaki, E. (1997). Burnout in Greek teachers: Main findings and validity of the Maslach Burnout Inventory. *Work & Stress, 11,* 94-100

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.

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. (1993a). A longitudinal study of burnout among supervisors and managers: Comparisons between the Leiter and Maslach (1988) and Golembiewski et al. (1986) models. *Organizational behavior and human decision processes, 54,* 369-398.

Lee, R. T., & Ashforth, B. E. (1993b). 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. (1989). Conceptual implications of two models of burnout: A response to Golembiewski. *Group & Organizational Studies, 14,* 15-22.

Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior, 9,* 297-308.

Leiter, M. P., & Robichaud, L. (1997). Relationships of occupational hazards with burnout: An assessment of measures and models. *Journal of Occupational Health Psychology, 2,* 35-44.

Longenecker, C. O. (1984). Executive cognition and affect in performance appraisal: A qualitative study. Unpublished doctoral dissertation, Pennsylvania State University.

Longenecker, C. O., & Ludwig, D. (1990). Ethical dilemmas in performance appraisal revisited. *Journal of Business Ethics, 9,* 961-969.

Longenecker, C. O., Sims, H. P., & Gioia, D. A. (1987). Behind the mask: The politics of employee appraisal. *Academy of Management Executive, 1,* 183-193.

Luthans, F. (2002). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive, 16,* 57-72.

Maslach, C. (1976). Burned-out. *Human Behavior, 5,* 16-22.

Maslach, C. (1978). Job burnout: How people cope *Public Welfare, 36,* 56-58.

Maslach, C. (1982a). *Burnout: The cost of caring.* Englewood Cliffs, NJ: Prentice Hall.

Maslach, C. (1982b). Understanding burnout: Definitional issues in analyzing a complex phenomenon. In W. S. Paine (Ed.). *Job Stress and Burnout.* Beverly Hills: Sage.

Maslach, C. (2001). What have we learned about burnout and health? *Psychology & Health, 16,* 607-611.

Maslach, C., & Goldberg, J. (1998). Prevention of burnout: New perspectives. *Applied & Preventive Psychology, 7,* 63-74.

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., & Leiter, M. P. (1999). Burnout and engagement in the workplace: A contextual analysis. In T. Urdan (Ed.). *Advances in Motivation and Achievement* (Vol 11, pp. 275-302). Stamford, CT: JAI Press.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52,* 397-422.

Masuda, S. (1997). The validity of Japanese-translated Maslach Burnout Inventory. *The Japanese Journal of Health Psychology, 10,* 44-53.

Melamed, S., Kushnir, T., & Shirom, A. (1992). Burnout and risk factors for cardiovascular disease. *Behavioral Medicine, 18,* 53-61.

Millsap, R. E. (2002). Structural equation modeling: A user's guide. In F. Drasgow and N. Schmitt (Eds.). *Measuring and analyzing behavior in organizations.* San Francisco: Jossey-Bass.

Minnehan, R. F., & Paine, W. S. (1982). Bottom lines: Assessing the economic and legal consequences of burnout. In W. S. Paine (Ed.). *Job Stress and Burnout.* Beverly Hills: Sage.

Nye, L. G., Witt, L. A., & Schroeder, D. (1992). Confirmatory factor analysis of burnout dimensions: Correlations with job stressors and aspects of social support and job satisfaction. Washington, DC: Office of Aviation Medicine.

O'Driscoll, M. P., & Schubert, T. (1988). Organizational climate and burnout in a New Zealand social service agency. *Work & Stress, 2,* 199-204.

Paine, W. S. (1982). Overview: Burnout stress syndromes and the 1980's. In W. S. Paine (Ed.). *Job Stress and Burnout.* Beverly Hills: Sage.

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.

Peiro, J. M., Gonzalez-Roma, V., Tordera, N., & Manas, M. A. (2001). Does role stress predict burnout over time in health care professionals? *Psychology & Health, 16,* 511-525.

Pines, A., Aronson, E., & Kafry, D. (1981). *Burnout: From tedium to personal growth.* New York: Free Press.

Schaufeli, W. (1995). *Utrect Burnout Scale.* Utrecht: Utrecht University.

Schaufeli, W. B., & Enzmann, D. (1998). *The burnout companion for research and practice: A critical analysis of theory, assessment, research, and interventions.* London: Taylor & Francis.

Schaufeli, W. B., Leiter, M. P., & Kalimo, R. (1995). The General Burnout Questionnaire: Cross-national development and validation. Paper presented at the APA/NIOSH Congress on Work, Stress and Health. Washington, DC.

Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3,* 71-92.

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.

Seligman, M. E. P. & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55,* 5-14.

Seltzer, J. & Numerof, R. E. 1988. Supervisory leadership and subordinate burnout. *Academy of Management Journal,* 31: 439-446.

Shinn, M. (1982). Methodological issues: Evaluating and using information. In W. S. Paine (Ed.). *Job Stress and Burnout.* Beverly Hills: Sage.

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

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.

Truchot, D., & Deregard, M. (2001). Perceived inequity, communal orientation, and burnout: The role of helping models. *Work & Stress, 15,* 347-356.

Tziner, A., Latham, G. P., Price, B. S., & Haccoun, R. (1996). Development and validation of a questionnaire for measuring perceived political considerations in performance appraisal. *Journal of Organizational Behavior, 17,* 179-190.

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.

Vroom, V.H. (1964). *Work and motivation.* New York, NY: Wiley.

Westman, M. & Etzion, D. (2001). The impact of vacation and job stress on burnout and absenteeism. *Psychology & Health, 16,* 595-606.

Wright, T. A., & Bonett, D. G. (1997). The contribution of burnout to work performance. *Journal of Organizational Behavior, 18,* 491-499.

Table 1.
Means, Standard Deviations, Internal Consistency Estimates (Cronbach's Alpha), and Correlations for MBI-GS and OLBI for Study 1

Subscale	Mean	SD	α	EX	CY	PE	OLBIEX	OLBIDE
Not-for-Profit Human Services Employees (N = 33)								
EX	3.29	1.01	.90	---	.60	-.40	.85	.57
CY	3.64	0.86	.93		---	-.69	.53	.83
PE	2.17	0.99	.84			---	-.41	-.72
OLBIEX	3.25	0.74	.84				---	.59
OLBIDE	3.42	0.67	.79					---
Employed Students (N = 405)								
EX	2.87	0.87	.82	---	.49	-.16	.69	.50
CY	2.71	0.74	.73		---	-.42	.51	.69
PE	3.91	0.53	.71			---	-.31	-.44
OLBIEX	2.74	0.58	.75				---	.49
OLBIDE	3.04	0.61	.74					---
Hairstylists (N = 84)								
EX	2.69	0.86	.83	---	.52	-.35	.64	.39
CY	2.47	0.73	.72		---	-.45	.64	.66
PE	4.18	0.49	.73			---	-.43	-.48
OLBIEX	2.63	0.54	.71				---	.66
OLBIDE	2.49	057	.73					---
Fire Department Employees (N = 83)								
EX	3.12	1.16	.92	---	.78	-.37	.86	.79
CY	3.12	1.06	.87		---	-.38	.74	.83
PE	3.97	0.74	.80			---	-.50	-.52
OLBIEX	2.78	0.85	.89				---	.84
OLBIDE	2.94	0.86	.88					---

Note. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; OLBIEX = OLBI Exhaustion; OLBIDE = OLBI Disengagement

Table 2.

Fit Statistics for OLBI Measurement Model Comparisons for Study 1

Sample	Model	χ^2	df	GFI	CFI	TLI	AIC	BIC	RMSEA	RMSEA 90% CI
Employed Students										
	Unidimensional model	733.1	104	.75	.62	.56	525.1	109.4	.120	.114-.131
	Two-trait model	622.3	103	.81	.69	.64	416.3	-98.3	.110	.103-.121
Hairstylists										
	Unidimensional model	217.9	104	.74	.70	.65	9.9	-242.9	.115	.093-.136
	Two-trait model	217.7	103	.74	.70	.65	11.7	-238.7	.116	.094-.137
Fire Department Employees										
	Unidimensional model	257.3	104	.72	.81	.79	49.2	-201.0	.135	.114-.156
	Two-trait model	253.2	103	.72	.82	.79	47.2	-200.7	.134	.113-.155

Table 3.
Fit Statistics for OLBI/MBI-GS Measurement Comparisons for Study 1

Sample	Model	χ^2	df	GFI	CFI	TLI	AIC	BIC	RMSEA	RMSEA 90% CI
Employed Students										
	Trait Model	1892.1	461	.74	.70	.67	970.1	-872.2	.088	.084-.092
	Method Model	2515.1	463	.62	.56	.53	1589.1	-261.3	.105	.101-.109
	MTMM Model									
	Unconstrained	1329.3	428	.82	.81	.78	473.3	-1237.2	.073	.068-.077
	Constrained	1340.0	429	.81	.81	.77	482.0	-1232.4	.073	.068-.077
Hairstylists										
	Trait Model	938.2	461	.61	.59	.56	16.1	-1104.5	.112	.101-.122
	Method Model	975.6	463	.57	.56	.53	49.6	-1075.9	.115	.105-.126
	MTMM Model									
	Unconstrained	733.7	428	.69	.74	.70	-122.3	-1162.7	.093	.081-.104
	Constrained	770.4	429	.67	.71	.66	-87.2	-1129.9	.098	.087-.109
Fire Department Employees										
	Trait Model	1000.8	461	.55	.75	.73	78.8	-1030.6	.120	.110-.130
	Method Model	1148.8	463	.49	.68	.65	222.8	-891.6	.135	.125-.145
	MTMM Model									
	Unconstrained	801.4	428	.63	.82	.80	-54.6	-1084.7	.104	.093-.115
	Constrained	838.8	429	.60	.81	.76	-32.2	-978.6	.111	.101-.121

Table 4.

Means, Standard Deviations, Internal Consistency Estimates (Cronbach's Alpha) and Correlations for Study 2 Instruments

Instrument	Mean	SD	α	EX	CY	PE	POPS	PPA	TAPS
Student Sample									
EX	2.87	0.87	.82	---	.49	-.16	.35	.19	.096
CY	2.71	0.74	.73		---	-.42	.46	.23	.20
PE	3.91	0.53	.71			---	-.26	-.14	-.11
POPS	2.79	0.57	.82				---	.50	.42
PPA	2.81	0.53	.92					---	.60
TAPS	2.71	0.40	.75						---
Hairstylists									
EX	2.69	0.86	.83	---	.52	-.35	.37		
CY	2.47	0.73	.72		---	-.45	.42		
PE	4.18	0.49	.73			---	-.19		
POPS	2.74	0.63	.88				---		
Fire Department Employees									
EX	3.12	1.16	.92	---	.78	-.37	.70	.53	.45
CY	3.12	1.06	.87		---	-.38	.77	.53	.54
PE	3.97	0.74	.80			---	-.31	-.15	-.30
POPS	3.48	1.06	.91				---	.66	.54
PPA	2.99	0.68	.74					---	.72
TAPS	2.77	0.52	.95						---

Note. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; VI = UES Vigor; DE = UES Dedication; AB = UES Absorption

Table 5.

Study 2 Initial Multiple Regression Results

	EX			CY			PE		
Predictor	β	SE	*p*	β	SE	*p*	β	SE	*p*
Student Sample (*N* = 404)									
POPS	.53	.083	<.0001	.59	.067	<.0001	-.24	.052	<.0001
TAPS	-.22	.13	.089	.0046	.10	.96	.023	.082	.78
PPA	.131	.102	.200	.0098	.083	.91	-.027	.065	.68
Fire Department Sample (*N* = 80)									
POPS	.67	.12	<.0001	.74	.09	<.0001	-.23	.099	.021
TAPS	.15	.52	.88	.44	.21	.036	-.51	.22	.023
PPA	.14	.23	.53	-.16	.18	.35	.34	.19	.065
Hairstylist Sample (*N* = 82)									
POPS	.51	.14	.0005	.49	.12	<.0001	-.14	.086	.093

Table 6.

Perceptions of Politics Mediated Multiple Regression Results from Study 2

	Student Sample	Fire Department Sample
Emotional Exhaustion		
Step 1: Criterion: POPS		
PPA	.54****	1.03***
Step 2: Criterion: EX		
PPA	-.32***	.92***
Step 3: Criterion: EX		
POPS	-.51***	.68***
PPA	.044	.21
Cynicism		
Step 1: Criterion: POPS		
PPA	.54****	1.03***
Step 2: Criterion: CY		
PPA	-.33***	.83***
Step 3: Criterion: CY		
POPS	-.59***	.77***
PPA	.011	.05
Personal Efficacy		
Step 1: Criterion: POPS		
PPA	.54****	1.03***
Step 2: Criterion: PE		
PPA	-.14**	-.17
Step 3: Criterion: PE		
POPS	-.23***	-.26**
PPA	.018	.10

Note. Entries are standardized betas. POPS = Perceptions of Politics; PPA = Perceptions of Politics in Performance Appraisal; EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; *$p < .05$; **$p < .01$, ***$p < .001$.

Table 7.

Means, Standard Deviations, Internal Consistency Estimates (Cronbach's Alpha), and Correlations for Study 3 Instruments

Instrument	Mean	SD	α	EX	CY	PE	MOI-AS	MOI-SS	Ratings
EX	3.21	1.07	.92	---	.60	-.45	-.60	-.44	-.54
CY	3.62	0.90	.87		---	-.74	-.62	-.31	-.51
PE	2.22	1.03	.93			---	.54	.20	.21
MOI-AS	2.62	0.88	.93				---	.74	.61
MOI-SS	2.82	0.83	.93					---	.78
Performance Ratings	3.87	0.63							----

Note. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; MOI-AS = Motivation Orientation Inventory-Accomplishment Striving Scale; MOI-SS = Motivation Orientation Inventory-Status Striving Scale.

Table 8.

Motivation (Accomplishment Striving) and Performance Ratings Mediated Multiple Regression Results from Study 3

	EX	CY	PE
Step 1: Criterion: MOI-AS			
Burnout Subscale	-.54***	-.66***	.50***
Step 2: Criterion: Supervisor Ratings			
Burnout Subscale	-.33***	-.38**	.14
Step 3: Criterion: Supervisor Ratings			
Burnout Subscale	-.15	-.17	-.09
Accomplishment Striving	.28*	-.30*	.43***

Note. Entries are standardized betas. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; *$p < .05$; **$p < .01$, ***$p < .001$.

Table 9.

Motivation (Status Striving) and Performance Ratings Mediated Multiple Regression Results from Study 3

	EX	CY	PE
Step 1: Criterion: MOI-SS			
Burnout Subscale	-.35**	-.30*	.17
Step 2: Criterion: Supervisor Ratings			
Burnout Subscale	-.33**	-.39**	.14
Step 3: Criterion: Supervisor Ratings			
Burnout Subscale	-.09	-.21*	.02
Status Striving	.48***	.48***	.54***

Note. Entries are standardized betas. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; *$p < .05$; **$p < .01$, ***$p < .001$.

Table 10.
Means, Standard Deviations, Internal Consistency Estimates (Cronbach's Alpha), and Correlations for Study 4 Instruments

Instrument	Mean	SD	α	EX	CY	PE	OLBIEX	OLBIDE	MOI-AS	MOI-SS	MOI-CS	Supervisor	Self
EX	3.12	1.16	.92	---	.60	-.40	.85	.57	-.76	-.64	-.46	-.59	-.40
CY	3.12	1.06	.87		---	-.69	.53	.83	-.64	-.54	-.42	-.60	-.45
PE	3.97	0.74	.80			---	-.41	-.72	.46	.47	.29	.28	.21
OLBIEX	2.76	0.85	.88				---	.59	-.73	-.59	-.46	-.52	-.34
OLBIDE	2.94	0.86	.89					---	-.72	-.65	-.44	-.54	-.37
MOI-AS	3.27	0.88	.92						---	.80	.68	.57	.38
MOI-SS	3.34	0.83	.95							---	.69	.53	.40
MOI-CS	3.23	0.83	.92								---	.39	.24
Supervisor Ratings	7.66	1.10	.94									---	.85
Self-Ratings	8.29	0.68	.98										---

Note. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; OLBIEX = OLBI Exhaustion; OLBIDE = OLBI Disengagement; MOI-AS = Motivation Orientation Inventory-Accomplishment Striving Scale; MOI-SS = Motivation Orientation Inventory-Status Striving Scale; MOI-CS = Motivation Orientation Inventory-Communion Striving Scale

Table 11.
Motivation (Accomplishment Striving) and Supervisor Ratings Mediated Multiple Regression Results from Study 4

	EX	CY	PE	OLBIEX	OLBIDE
Step 1: Criterion: MOI-AS					
Burnout Subscale	-.57***	-.53***	.55***	-.75***	-.73***
Step 2: Criterion: Supervisor Ratings					
Burnout Subscale	-.55***	-.62***	.42*	-.69***	-.66***
Step 3: Criterion: Supervisor Ratings					
Burnout Subscale	-.34**	-.41**	.02	-.33	-.28
Accomplishment Striving	.37*	.40**	.71***	.48**	.52**

Note. Entries are standardized betas. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; OLBIEX = OLBI Exhaustion; OLBIDE = OLBI Disengagement. $^{*}p < .05$; $^{**}p < .01$, $^{***}p < .001$.

Table 12.

Motivation (Status Striving) and Supervisor Ratings Mediated Multiple Regression Results from Study 4

	EX	CY	PE	OLBIEX	OLBIDE
Step 1: Criterion: MOI-SS					
Burnout Subscale	-.45***	-.42***	.53***	-.64***	-.57***
Step 2: Criterion: Supervisor Ratings					
Burnout Subscale	-.55***	-.62***	.42*	-.69***	-.66***
Step 3: Criterion: Supervisor Ratings					
Burnout Subscale	-.39**	-.45***	.06	-.42**	-.40**
Status Striving	.35*	.39**	.69***	.43**	.46**

Note. Entries are standardized betas. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; OLBIEX = OLBI Exhaustion; OLBIDE = OLBI Disengagement. *$p < .05$; **$p < .01$, ***$p < .001$.

Table 13.

Motivation (Accomplishment Striving) and Self Ratings Mediated Multiple Regression Results from Study 4

	EX	CY	PE	OLBIEX	OLBIDE
Step 1: Criterion: MOI-AS					
Burnout Subscale	-.57***	-.53***	.55***	-.75***	-.73***
Step 2: Criterion: Self-Ratings					
Burnout Subscale	-.23***	-.28***	.19	-.30**	-.26**
Step 3: Criterion: Self-Ratings					
Burnout Subscale	-.16	-.22**	.04	-.17	-.11
Accomplishment Striving	.13	.12	.27**	.17	.21

Note. Entries are standardized betas. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; OLBIEX = OLBI Exhaustion; OLBIDE = OLBI Disengagement. *$p < .05$; **$p < .01$, ***$p < .001$.

Table 14.

Motivation (Status Striving) and Self-Ratings Mediated Multiple Regression Results from Study 4

	EX	CY	PE	OLBIEX	OLBIDE
Step 1: Criterion: MOI-SS					
Burnout Subscale	-.45***	-.42***	.53***	-.64***	-.57***
Step 2: Criterion: Self-Ratings					
Burnout Subscale	-.23***	-.28***	.19	-.30**	-.26**
Step 3: Criterion: Self-Ratings					
Burnout Subscale	-.14	-.21**	.03	-.15	-.12
Status Striving	.19	-.18	.31**	.22*	.25*

Note. Entries are standardized betas. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; OLBIEX = OLBI Exhaustion; OLBIDE = OLBI Disengagement. *$p < .05$; **$p < .01$, ***$p < .001$.

Table 15.

Means, Standard Deviations, Cronbach's Alphas, and Correlations for MBI-GS and UES for Study 5

Instrument	Mean	SD	α	EX	CY	PE	VI	DE	AB
Employed Students									
EX	2.87	0.87	.82	---	.49	-.16	-.34	-.27	-.16
CY	2.71	0.74	.73		---	-.42	-.44	-.50	-.31
PE	3.91	0.53	.71			---	.44	.44	.29
VI	3.21	0.57	.71				---	.57	.56
DE	3.21	0.92	.89					---	.65
AB	2.79	0.72	.80						---
Hairstylists									
EX	2.69	0.86	.83	---	.52	-.35	-.14	-.18	-.08
CY	2.47	0.73	.72		---	-.45	-.28	-.46	-.05
PE	4.18	0.49	.73			---	.49	.47	.17
VI	3.65	0.58	.79				---	.64	.36
DE	3.94	0.64	.83					---	.53
AB	3.41	0.69	.77						---
Fire Department Employees									
EX	3.12	1.16	.92	---	.78	-.37	-.66	-.67	-.55
CY	3.12	1.06	.87		---	-.38	-.67	-.70	-.62
PE	3.97	0.74	.80			---	.62	.49	.51
VI	3.43	0.97	.85				---	.75	.67
DE	3.51	0.96	.88					---	.69
AB	2.88	0.86	.83						---

Note. EX = MBI-GS Emotional Exhaustion; CY = MBI-GS Cynicism; PE = MBI-GS Personal Efficacy; VI = UES Vigor; DE = UES Dedication; AB = UES Absorption

Table 16.

Fit Statistics for Engagement Measurement Model Comparisons for Study 5

Sample	Model	χ^2	df	GFI	CFI	TLI	AIC	BIC	RMSEA	RMSEA 90% CI
Employed Students										
	Unidimensional model	594.1	119	.82	.82	.80	356.1	-119.2	.10	.092-.11
	Two-trait model	456.8	118	.86	.87	.86	220.8	-250.5	.085	.077-.093
	Proposed model	360.0	116	.90	.91	.90	128.0	-335.3	.072	.064-.081
Hairstylists										
	Unidimensional model	280.4	119	.70	.68	.64	42.4	-245.5	.129	.109-.148
	Two-trait model	234.8	118	.74	.77	.74	-1.2	-286.7	.110	.089-.130
	Proposed model	219.0	116	.76	.80	.76	-12.7	-293.2	.104	.083-.125
Fire Department Employees										
	Unidimensional model	308.0	119	.69	.80	.77	70.0	-214.9	.141	.122-.160
	Two-trait model	287.0	118	.70	.82	.80	51.0	-231.6	.133	.114-.154
	Proposed model	249.4	116	.73	.86	.84	17.4	-260.4	.119	.099-.140

Table 17.

Fit Statistics for Engagement/Burnout Measurement Comparisons for Study 5

Sample	Model	χ^2	df	GFI	CFI	TLI	AIC	BIC	RMSEA	RMSEA 90% CI
Employed Students										
	Trait Models									
	Three Trait Model	2301.9	492	.67	.65	.63	1317.9	-1137.9	.096	.092-.100
	1 "well-being" factor	1468.6	479	.80	.81	.79	510.6	-1401.3	.072	.068-.076
	Schaufeli (2002) model	1431.1	482	.80	.82	.80	467.1	-1456.8	.070	.066-.075
	Method Model	2206.4	494	.70	.67	.65	1218.4	-753.4	.093	.089-.097
	MTMM Model									
	Unconstrained	1369.2	459	.81	.83	.80	451.2	-1380.9	.070	.066-.075
	Constrained	1444.5	460	.80	.81	.78	524.5	-1311.6	.073	.069-.077
Hairstylists										
	Trait Models									
	Three Trait Model	1167.9	492	.50	.45	.41	183.2	-1006.9	.129	.120-.139
	1 "well-being" factor	905.7	479	.64	.65	.62	-52.28	-1210.9	.104	.094-.115

Schaufeli (2002) model	909.2	482	.63	.65	.62	-54.8	-1220.6	.104	.094-.114
Method Model	905.7	528	.64	.65	.62	-58.3	-1224.1	.103	.093-.114
MTMM Model									
Unconstrained	820.8	459	.66	.70	.66	-97.2	-1207.9	.098	.087-.109
Constrained	880.4	460	.63	.66	.61	-39.6	-1152.2	.106	.095-.116
Fire Department Employees									
Trait Models									
Three Trait Model	1136.9	492	.51	.69	.67	152.6	-1025.5	.128	.118-.138
1 "well-being" factor	872.1	479	.60	.81	.79	-85.8	-1232.8	.101	.091-.112
Schaufeli (2002) model	863.8	482	.60	.82	.80	-100.1	-1254.3	.099	.089-.110
Method Model	872.1	482	.60	.81	.79	-91.89	-1246.0	.101	.089-.111
MTMM Model									
Unconstrained	792.9	459	.64	.84	.69	-125.0	-1224.1	.095	.084-.106
Constrained	838.8	460	.62	.82	.68	-81.2	-1182.6	.102	.091-.112

Figure 1.

Theoretical Relationships Between Burnout and Job Performance

A Direct Relationship



An Indirect (Mediated) Relationship

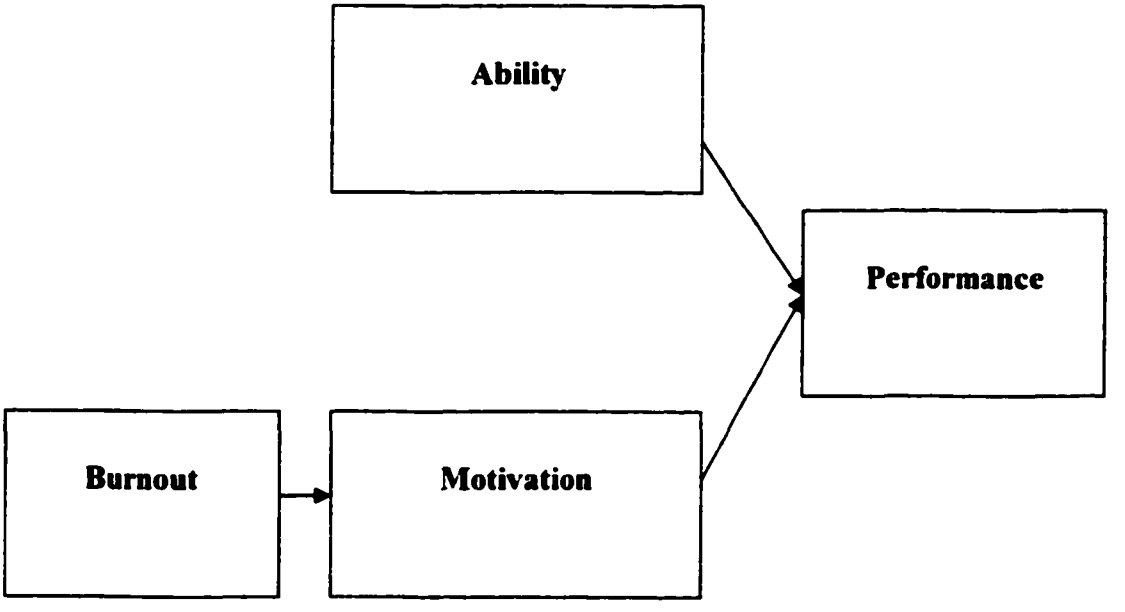


Figure 2.
OLBI Multi-trait, Multi-method Model

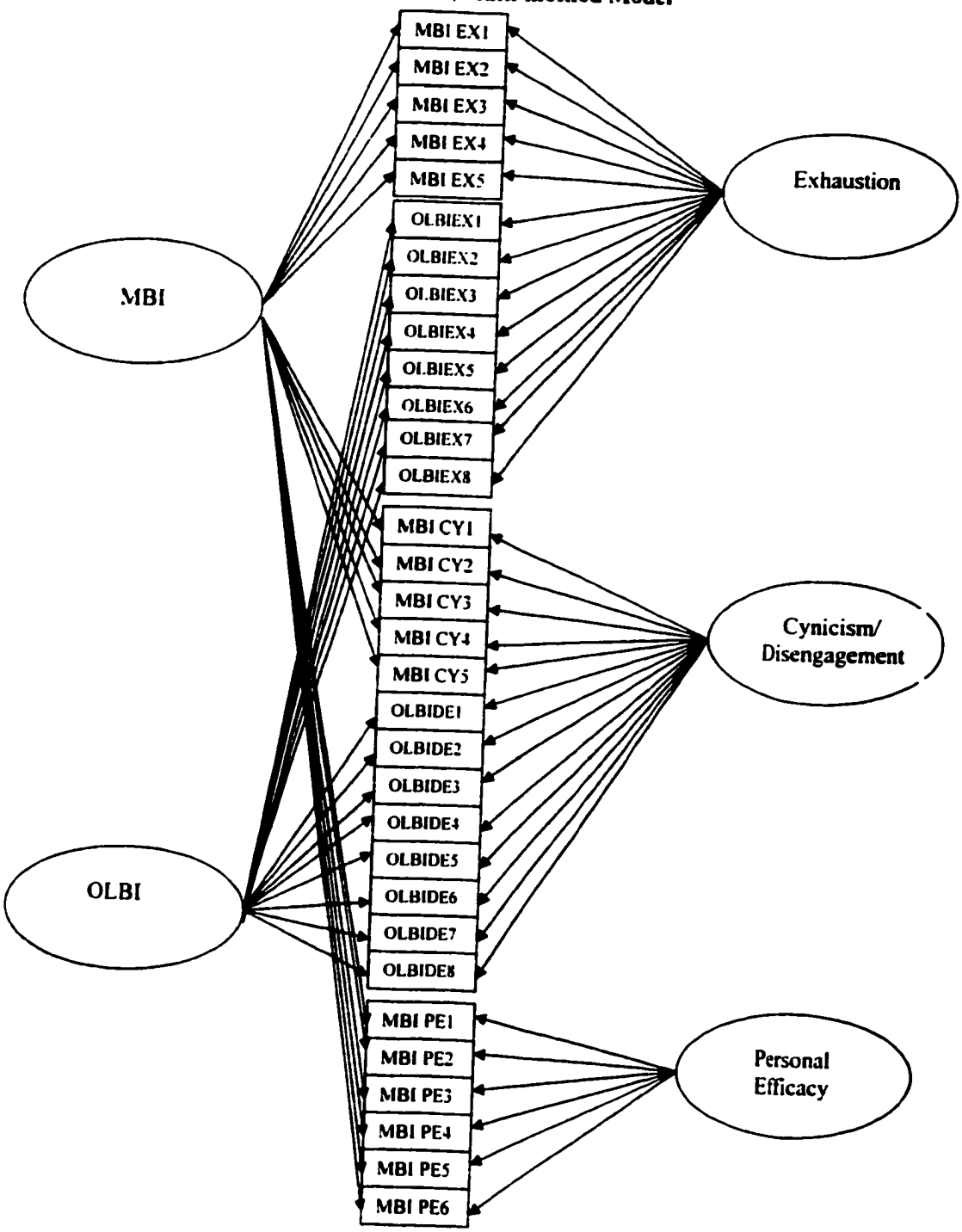


Figure 3.
UES Multi-trait, Multi-method Model

