

## INTRODUCTION TO SPECIAL ISSUE ON BURNOUT AND HEALTH

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In recent years, the issue of occupational stress and burnout have received increasing research attention. Given the amount of time people spend on work-related activities and the central importance of work to one's sense of identity and self-worth, it is not surprising that occupational stress is regarded as a central area of study. Although burnout is linked to the extensive literature on occupational health, burnout goes beyond occupational health by focusing on specific stressors in the workplace to emphasize total life and environmental pressures affecting health.

### BURNOUT DEFINED

Burnout may be defined as a state of physical, emotional and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding. A great deal of research has been devoted to the understanding of factors contributing to burnout and to its consequences for individuals and their health. Research indicates that stress and burnout are significant factors in the development of both physical and psychological illness (McGrath *et al.*, 1989). Further research findings show that burnout is correlated with numerous self-reported measures of personal distress (Belcastro and Gold, 1983; Greenglass, 1991; Schaufeli and Enzmann, 1998). These findings parallel those reported for teachers that burnout also correlates positively with depression, anxiety and somatization (Greenglass *et al.*, 1990; Bakker *et al.*, 2000).

Given the significance of burnout for the individual, it was necessary to have a standardized instrument to measure burnout. The Maslach Burnout Inventory (MBI; Maslach *et al.*, 1996) is currently the most widely used research instrument to measure burnout, that is used in over 90% of empirical research (Schaufeli and Enzmann, 1998). The MBI has three subscales that assess three different aspects of burnout. In the original Human Services Survey and Educators Survey these are emotional exhaustion, depersonalization, and reduced personal accomplishment. Emotional exhaustion refers to feelings of being emotionally overextended and drained by others. Depersonalization refers to a callous response toward people who are recipients of one's services. Reduced personal accomplishment refers to

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a decline in one's feelings of competence and successful achievement in one's work with people. Recently, the MBI-General Survey has been developed that can be used outside human services and education in any other occupational field (see later parts of this Introduction for more on the MBI-General Survey).

## BURNOUT AND GENDER

Since human service professionals have been described as particularly vulnerable to burnout (Freudenberger, 1977), it is important to examine characteristics of occupations and the occupant's response to the stressors involved. Considerable research has been conducted on burnout in the human services. Schaufeli and Enzmann (1998, pp. 72-73) calculated that the most frequently studied occupational groups are teachers (17%), nurses (17%) and social workers (7%), respectively. While the sources of stress may vary among these professions, they share a high vulnerability to burnout given the demands made on them by individuals and a shortage of time to fulfill the demands that are a part of their profession. At the same time, many of the professional human service workers tend to be women, although men too are found in many service areas including social work, teaching and health care. In the past when researchers asked, who suffered more from burnout, women or men, data supported the view that women were more susceptible to burnout since they often took primary responsibility for children in addition to their employment. However, in research examining sex differences in burnout, often men and women occupy different occupational roles, which would result in a confounding of sex and occupation. For example, Maslach and Jackson (1985) examined sex differences in a wide range of human service occupations. Women were higher on emotional exhaustion and lower on personal accomplishment than men. In other words, women were more likely to feel emotionally drained by their work than men. But, in this study gender was confounded with type of occupation. Police officers and psychiatrists were usually men and nurses, social workers and counselors were typically women. Therefore, the sex differences reported may in fact reflect differences in occupations.

Other data indicate that men experience higher scores on depersonalization than women (Greenglass *et al.*, 1988; Ogus *et al.*, 1990; Greenglass *et al.*, 1990; Schwab and Iwanicki, 1982; Anderson and Iwanicki, 1984). Why should men be more prone to depersonalization, an attitude characterized by callousness and being impersonal towards one's students or clients? One explanation is found in accepted norms associated with the masculine gender role, which emphasizes strength, independence, separation and invulnerability (Greenglass, 1991). In this context then depersonalization may be regarded as a reflection of men's repressed emotionality. Another explanation derives from the emphasis on achievement, which is an integral part of the masculine gender role. If men are also competitive and their feelings of masculinity depend on successful achievement, their cynicism may derive from distrust of those with whom they are competing. This may lead to anti-social and hostile feelings, particularly when threatened under stress. Additional data indicate that men are significantly higher than women on cynical distrust, a measure of hostility and distrust in others (Greenglass and Julkunen, 1989, 1991; Greenglass, 1998). These findings parallel earlier reported findings that men are higher on depersonalization. These results coincide with observations by Solomon (1982) that feelings of anger, hostility and aggression are an expected part of the masculine gender role even though avoidance of expressiveness is encouraged. And Hobfoll *et al.* (1996), in their studies of the Multiaxial Model of Coping,

report that men utilize more aggressive and antisocial action in their coping. These observations indicate the theoretical connections between coping styles, gender roles, and burnout and highlight the need to integrate research from all three areas to further our understanding of burnout.

## BURNOUT AND OCCUPATIONS

While stress and burnout in human service professionals constitute a large part of the literature in the area, individuals in all occupations are vulnerable to burnout. Researchers have found, however, that the three factors – emotional exhaustion, depersonalization and personal accomplishment – were not maintained across all occupational groups. In particular, the depersonalization and emotional exhaustion subscales tended to collapse into one factor when groups other than human service providers completed the MBI (Leiter *et al.*, 1994). The need for developing a scale that measures burnout in occupational groups other than human service professionals prompted the development of the Maslach Burnout Inventory – General Survey (MBI-GS) (Schaufeli *et al.*, 1996). The goal of this survey was to adapt the MBI to occupations without direct personal contact with service recipients or with only causal contact with people. Thus, the MBI-GS defines burnout as a crisis in one's relationship with work, not necessarily as a crisis in one's relationship with people – patients or clients, at work.

The MBI-GS measures respondents' relationships with their work on a continuum from engagement to burnout. As in the MBI, the emotional exhaustion subscale measures depletion of emotional energy and refers to fatigue, but without direct reference to people as the source of these feelings. The subscale Cynicism replaces Depersonalization in the MBI. Cynicism refers to indifference or a distant attitude towards one's work. The Professional Efficacy subscale of the MBI-GS is similar in many ways to Personal Accomplishment (MBI). Professional Efficacy emphasizes more directly expectations at work, including an individual's expectations of continued effectiveness at work. Like the original MBI, the MBI-GS has good psychometric properties such as (cross-national) factorial validity (Schutte *et al.*, 2000) and construct validity (Leiter and Schaufeli, 1996; Taris *et al.*, 1999).

## BURNOUT AND CURRENT EMPLOYMENT TRENDS – THE “NEW LOOK” OF EMPLOYMENT

There is a need to be cognizant of the changes that are rapidly occurring throughout today's workplace. As a result of restructuring, downsizing and mergers, many jobs have been eliminated. These changes and their effects are widespread, occurring in both public and private spheres and in many countries, thus affecting millions of workers. Job loss is rampant as is the threat of job loss, both of which have deleterious psychological consequences, both for individual workers and their families (Hartley *et al.*, 1991). Since employment is not only the means of financial viability, but also defines individuals' identities, job loss or even the threat of it, can be psychologically devastating (Dekker and Schaufeli, 1995). Recent changes in the global economy have resulted in employment conditions that have made many more workers vulnerable to occupational burnout relating to job insecurity. A basic assumption underlying the study of burnout to date has been that individuals choose a profession for life; they are committed to their life's work for their whole lifetime and, in return, the company was supposed to reciprocate – workers presumably enjoyed

a degree of loyalty from their employing organization. In other words, they feel valuable and needed by their employer. In the past, this feeling was supposed to increase with length of employment. But, data suggest that this is changing.

Research reports document that global changes in the market economy including the proliferation of free trade along with technological changes, have resulted in the loss of thousands of jobs worldwide. In the 1980s more than 1.5 million middle level management jobs were eliminated (Rifkin, 1995). In the first five years of the 1990s, 3.1 million U.S. workers lost their jobs through redundancy and reorganization, and more than 43 million jobs have been lost in the U.S. since 1979 (Uchitelle and Kleinfeld, 1996). Governments are also scaling back. In the U.S., between 1979 and 1993, 454,000 public service jobs were lost. Downsizing, the act of eliminating employees by permanent layoffs, cutbacks, attrition, early retirement and termination, is becoming one of the most frequently used strategies by companies and government alike to cut costs. The prospect of demotion, or even the long-term prospect of eventual job loss, can be associated with decreased psychological well being (Roskies and Louis-Guerin 1990).

At the same time, job insecurity can lead to anger and hostility in workers. These are some of the conclusions from a New York Times Poll on issues of economic insecurity based on randomly selected telephone interviews conducted with 1 265 adults in the U.S. from December 3–6, 1995 (Kleinfeld, 1996). In response to the question comparing the mood at many workplaces with the way it used to be, 53% answered that the mood had become angrier. Seventy-five percent said that companies were less loyal to their employees today. Another explanation for the relationship between hostility, anger and job insecurity is when an employee perceives the organization has failed to meet its obligations, anger, outrage, distrust and resentment are more likely to occur (Shore and Tetrick, 1994; Rousseau, 1989).

To the extent that the psychological contract is violated when employees perceive their job security is threatened due to downsizing by their employers, workers are more likely to feel betrayed and, as a result, experience anger, cynicism and hostility. According to Equity Theory, people pursue reciprocity in their interpersonal and organizational relationships. What they invest and gain from a relationship should be proportional to the investments and gains of the other party in the relationship. When they perceive relationships are inequitable, they feel distressed and are motivated to restore equity (Buunk and Schaufeli, 1999). Thus, with widespread downsizing, there should be an increase in job insecurity and, as a result, cynicism and hostility, due to a broken psychological contract. These feelings would be expressed as high cynicism or disengagement about one's work, thus reflecting on one of the important aspects of burnout. Findings from a study of nurses experiencing hospital downsizing indicated that anger and cynicism in nurses increased, the more their jobs deteriorated, the greater their job insecurity, and the greater the reported impact of restructuring (Greenglass and Burke, 2000a).

#### BURNOUT AND SOCIAL SUPPORT – DOES IT HELP?

Today's unstable and uncertain work environment no longer promises or even encourages life-long employment in the same organization or even in the same career. Workers today need to develop flexibility to adjust to a changing employment market. As researchers in the area of burnout, we need to re-think concepts such as organizational commitment, loyalty to one's organization, and organizational support, all of which might have ameliorated worker burnout, but now simply are less viable given present employment reality.

In a similar vein, co-worker support needs to be re-conceptualized given today's "new" working reality. Many research studies have demonstrated the beneficial effects on worker burnout of co-worker support and supervisor support as well (Greenglass *et al.*, 1998). Theory and empirical work in the area of burnout have indicated that these kinds of support can alleviate burnout because they provide important informational, practical and emotional benefits to workers. Both main effect and buffering effects of support have been demonstrated in the burnout literature. (Greenglass, 1998; Himle *et al.*, 1990, 1991).

Research findings today indicate that workers see the bonds of loyalty between employees and companies, and the spirit of cooperation among employees being eroded by anxiety and pressure to work harder for less. For instance, in the previously mentioned New York Times Poll on a question that asked, compared with the way things used to be, do most working people these days cooperate more or compete more with their co-workers, 70% of respondents said they *compete* more and 20% said they cooperate more (Kleinfield, 1996).

At the same time, recent research findings indicate that some kinds of social support may be more useful and beneficial in moderating burnout than others. For example, in their research on burnout in social workers, Himle *et al.* (1991) found that informational and instrumental support provided by both co-workers and supervisors had buffering effects on burnout components. These authors suggest that the possession of knowledge gained in part from information support, and the practical assistance to complete a task gained from instrumental support, may have contributed to social workers' perceptions that they had greater control over their job situation and as a result, less burnout. Other research findings with teachers show that practical support from one's co-workers and supervisors buffered teachers from depersonalization when confronted with high work stress (Greenglass *et al.*, 1996). As was the case with social workers (Himle *et al.*, 1991), practical support may result in teachers' perceptions of greater control over their work, thus resulting in a decrease in the teachers' need to depersonalize their students. Greenglass *et al.* (1996) also report that informational support from a teacher's co-workers and supervisor buffered emotional exhaustion. Information support may help individuals structure their workload so that it more closely matches their resources.

Further data demonstrate the importance of emotional support as a buffer of burnout, in particular, cynicism. In a study of nurses employed in hospitals undergoing hospital restructuring, perceived organizational support was a significant buffer of nurses' perceived job insecurity on cynicism (Greenglass and Burke, 1999a). To the extent that nurses felt valued and important to their hospital (affective support), even though they might have been insecure about the future of their jobs, they were less likely to become cynical or disengaged from their job. Affective support from an organization would appear to protect employees from cynicism, despite feelings of job insecurity. It is also possible that equity is restored to the relationship between the employee and the organization when employees believe they are valued, thus decreasing feelings of cynicism (Schaufeli *et al.*, 1996).

## INDIVIDUAL RESOURCES AND BURNOUT

Additional research demonstrates that individual resources result in lower burnout. For example, Greenglass and Burke (1999b) report that self-efficacy predicted to lower emotional exhaustion, lower cynicism and higher professional efficacy in nurses employed in hospitals that were being downsizing. Self-efficacy is a personality variable reflecting a person's optimistic self-beliefs about being able to deal with critical demands by means of adaptive

actions (Schwarzer, 1993). It reflects the belief of being able to control challenging environmental demands (Bandura, 1992). For Leiter (1991a), since burnout diminishes the potential for subsequent effectiveness, it is inconsistent with a sense of self-determination or self-efficacy.

There is further evidence that individual skills such as coping ability, affect the degree of burnout experienced. Thus, nurses who use higher levels of control coping in dealing with stress, have lower cynicism and higher professional efficacy than their counterparts who use control coping less (Greenglass and Burke, 2000b). Thus, to the extent that nurses employed coping, which depended on their own efforts to change the situation (control coping), they were more likely to have positive feelings about their professional accomplishments. Control coping was also a negative predictor of cynicism in nurses (Greenglass and Burke, 2000b). That is, more control coping predicted significantly to nurses' lower cynicism about their jobs. Thus, nurses who believe that outcomes are within their control, are less likely to become cynical about their patients when experiencing stress on the job. It is also possible that cynical nurses are less likely to use control coping. The finding that control coping predicted positively and significantly to professional efficacy, coincides with Leiter (1991b) who found that control coping strategies used by workers in a mental hospital were related to less emotional exhaustion and to more positive assessment of personal accomplishments. Greenglass and Burke (2000b) also report that escape coping was associated with higher levels of burnout, including more emotional exhaustion and cynicism. As with other palliative coping forms, escape coping appears to be another symptom of distress rather than a coping form since it is consistently associated with psychological symptomatology (Latack, 1986; Greenglass, 1995). While control-oriented coping represents a high level of energy and optimism about changing conditions, escape coping implies passivity and pessimism, particularly about the possibility of making any changes. This is reflected in the consistent findings of an association between psychological symptomatology and escape coping (Leiter, 1991b). To the extent that management can assist their employees to develop more control-oriented coping forms rather than avoidance or escape coping, employees will be enabled to cope more effectively with burnout.

The inclusion of factors that increase professional efficacy and the demonstration in research that control coping and self-efficacy contribute to higher feelings of professional competence coincide with recent developments within psychology that emphasize positive psychology (Seligman and Csikszentmihalyi, 2000). In the Introductory article to a *Special Issue on Happiness, Excellence and Optimal Functioning* in the premier issue of the *American Psychologist* in the new millennium, they discuss the importance of positive individual traits and positive institutions to improve quality of life and prevent pathologies. Clearly, these observations have implications for determining the direction of burnout research (Maslach *et al.*, in press). In focusing on positive skills including control coping and self-determination, as opposed to the negative emphasis that has characterized much of psychological research, it is possible to develop individual and social programs to prevent the development of burnout in individuals and enhance their quality of life. These programs would be focused more on self and professional enhancement rather than simply alleviating burnout.

#### THE SPECIAL ISSUE ON BURNOUT

This Special Issue on Burnout brings together six papers from five different countries and represents "cutting edge" research currently being undertaken in the area of burnout world-

wide. In the first paper entitled, “*Does Role Stress Predict Burnout Over Time Among Health Care Professionals?*” Peiró, González-Romá, Tordera and Mañas use a longitudinal design to study the relationship between role stressors and burnout. While longitudinal research is necessary to predict changes in burnout over time, these types of studies remain in the minority of research studies conducted in the area of burnout. Peiro and his colleagues report that three role stressors, role conflict, role ambiguity and role overload, predict changes in emotional exhaustion. Role overload and role conflict predict depersonalization, and role ambiguity predicts personal accomplishment. Their results have clear implications for interventions that are aimed at alleviating burnout over time and enhancing professional efficacy.

In their paper, “*Emotion Work and Job Stressors and their Effects on Burnout*”, Zapf, Seifert, Schmutte, Mertini and Holz focus on the high emotional demands resulting from interaction with clients. Emotion work is defined as the requirement to display organizationally desired emotions. The operationalization of emotion work in this study illustrates how burnout research can be enhanced by integrating constructs from other areas into research designs in the burnout area. Results of analyses showed that emotion work was a significant predictor of all three burnout subscales. Further, analyses of interaction effects of emotional dissonance and stressors showed that, for service professionals, the coincidence of these stressors led to exaggerated levels of emotional exhaustion and depersonalization. Respondents in the service sample may be more likely to develop higher levels of emotional exhaustion and depersonalization under conditions of *combined* high emotional dissonance (the requirement to display emotions that are not felt) and stressor conditions. By focusing on the role of emotional demands as predictors of burnout, this paper indicates further directions that can be taken in interventions aimed at lessening burnout. By reducing the emotional demands on service workers, burnout should be considerably reduced.

In their paper, “*Abusive Interactions and Burnout: The Contribution of Occupation and Gender*”, Leiter, Frizzell, Harvie and Churchill focus on the relationship between workplace abuse and organizational environment, an area that has been under-researched. Given the increase in distrust and hostility in workers as a result of the new employment reality, more research is needed in this area. Results of this study showed that perceived risk of abuse was indirectly related to burnout through a reduced sense of community in hospital employees. Additional findings were that women perceived themselves at greater risk of sexual harassment and verbal abuse than did men. Implications are that by reducing workplace abuse, levels of burnout can also be reduced. Other implications of the findings are the need for organizational policies that will help reduce staff perceived risk of abuse and restore a sense of community to the organization.

Schaufeli, Bakker, Hoogduin, Schaap and Kladler in their paper, “*The Clinical Validity of the Maslach Burnout Inventory and the Burnout Measure*”, present data demonstrating that the Maslach Burnout Inventory (MBI) can be used for individual diagnostic purposes. In this study, the validity of the MBI is examined in two outpatient groups, a burned-out group suffering from work-related neurasthenia and a non-burned out group. Results showed the validity of the three-factor structure of burnout, that burnout can be differentiated from anxiety and depression, and that burnout scales can discriminate between burned-out and non-burned out outpatients. Based on cut-off scores derived from outpatient samples, it is estimated that about 4% of the Dutch working population (i.e. about 260,000 workers) suffers from “clinical burnout”; i.e. they have similar symptom levels as outpatients who are psychologically treated for burnout (Bakker *et al.*, 2000). Moreover, the MBI is included as an instrument to assess burnout in the official diagnostic guidelines

for work related mental problems that are issued by the Dutch Association of Occupational Medicine.

Burke and Greenglass examine conflict between work and family spheres, burnout and hospital restructuring in nurses in their paper, "*Hospital Restructuring, Work-Family Conflict and Psychological Burnout among Nursing Staff*". In this paper, work-family conflict contributed to higher levels of emotional exhaustion and cynicism, and to lower professional efficacy in a primarily female nursing sample. Results showed that work-family concerns made the greatest contribution to emotional exhaustion. Implications for hospitals and organizations in general are the need for them to implement and manage restructuring programs in ways that lessen work-family conflict. Greater support for employees with family responsibilities would also help lessen burnout, particularly emotional exhaustion.

In their paper, "*The Impact of Job Stress and Vacation on Burnout and Absenteeism*", Westman and Etzion examine the impact of job stress and vacation on strain and burnout in blue-collar employees. Their design allows testing the stressor-strain hypothesis by comparing levels of stress and strain while individuals are on and off their jobs. Their findings showed that vacation alleviated perceived job stress and burnout. They further report declines in burnout immediately after vacation and a return to prevacation levels four weeks later. They discuss the implications of their findings for the creation of healthy and productive workplaces.

Finally, in her concluding comment "*What have we learned about Burnout and Health*", Maslach discusses what the previous six papers in this Special Issue teach us about the new understanding of burnout and she speculates about the relationship between burnout with health.

Taken together, these six original empirical studies provide leadership and direction in the field of burnout research. They indicate the significant trends that are taking place in burnout research including the importance of studying burnout as a process that occurs over time. This allows for the study of factors that contribute to higher burnout over time and also provides an opportunity to study those factors that would allow for the alleviation of burnout levels, thus providing knowledge on intervention programs. The importance of studying vacations and their role in alleviating burnout, are highlighted in another paper here. The research presented here focuses on the need to broaden the theoretical base that is used in the design of burnout research. The concept of "emotional work", for example, incorporates theoretical work in another area into burnout research that increases our understanding of why certain professions, i.e. service, can be so emotionally demanding. At the same time, findings presented here point to the need to examine additional factors that contribute to burnout, i.e. perceived risk of abuse, because of their pervasive influence in the workplace. Other research reminds us that workers have other responsibilities besides their jobs and that work-family conflict can be a major contributor to burnout. Finally, the fact that burnout scores can be used diagnostically has important implications for the identification of burnout-related illness and the development of interventions that can be used to alleviate them. Moreover, all six of the studies reported here have important implications for the promotion of health and well-being through the alleviation of burnout and the provision of programs that will enhance workers' ability to deal effectively with stress.



## References

- Anderson, M.B.G. and Iwanicki, E.F. (1984) Teacher motivation and its relationship to burnout. *Educational Administration Quarterly*, **20**, 109–132.
- Bakker, A.B., Schaufeli, W.B., Demerouti, E., Janssen, P.M.P., Van der Hulst, R. and Brouwer, J. (2000) Using equity theory to examine the difference between burnout and depression. *Anxiety, Stress, and Coping*, **13**, 247–268.
- Bakker, A., Schaufeli, W.B. and Van Dierendonck, D. (2000) Burnout: prevalentie, risicogroepen en risicofactoren. [Burnout: prevalence, risk-groups and risk-factors] In: I.L.D. Houtman, W.B. Schaufeli and T. Taris, (Eds.), *Psychische vermoeidheid en werk: Cijfers, trends en analyses* (pp. 65–82). Alphen a/d Rijn: Samsom.
- Bandura, A. (1992) Exercise of personal agency through the self-efficacy mechanism. In: R. Schwarzer (Ed.), *Self-efficacy: Thought control of action* (pp. 3–38). Washington, DC: Hemisphere.
- Belcastro, P.A. and Gold, R.S. (1983) Teacher stress and burnout: Implications for school health personnel. *Journal of School Health*, **53**, 404–407.
- Buunk, B.P. and Schaufeli, W.B. (1999) Reciprocity in Interpersonal Relationships: An Evolutionary Perspective on its Importance for Health and Well-being. In: W. Stroebe and M. Hewstone (Eds.), *European Review of Social Psychology*, (Vol. 10, pp. 260–291).
- Dekker, W.A. and Schaufeli, W.B. (1995) The effects of job insecurity on psychological health and withdrawal: A longitudinal study. *Australian Psychologist*, **30**, 57–63.
- Freudenberger, H.J. (1977) Burnout: Occupational hazard of the child care worker. *Child Care Quarterly*, **56**, 90–99.
- Greenglass, E. (1991) Burnout and gender: Theoretical and organizational implications. *Canadian Psychology*, **32**, 562–572.
- Greenglass, E. (1995) Gender, work stress and coping: Theoretical implications. For special issue on gender in the workplace in the *Journal of Social Behavior and Personality*, **10**, 121–134.
- Greenglass, E. (1998) *A social contextual approach to coping*. Paper presented at the 19th International Conference of the International Stress and Anxiety Research Society (STAR), Istanbul, July 10–12.
- Greenglass, E. and Burke, R.J. (2000a) The relationship between hospital restructuring, anger, hostility and psychosomatics in nurses. *Journal of Community and Applied Social Psychology*, **10**, 155–161.
- Greenglass, E. and Burke, R.J. (2000b) Hospital downsizing, individual resources and occupational stressors in nurses. *Anxiety, Stress, and Coping: An International Journal*, **13**, 371–390.
- Greenglass, E. and Burke, R. (1999a) *Social support and burnout in nurses: Implications for Intervention*. Paper presented at the Annual Meeting of the American Psychological Association, Boston, August 20–24.
- Greenglass, E. and Burke, R. (1999b) *Burnout and Restructuring: Implications for Psychological Functioning*. Paper presented at the VI European Congress of Psychology, Rome, Italy, July 4–9.
- Greenglass, E., Burke, R.J. and Konarski, R. (1998) Components of burnout, resources and gender-related differences. *Journal of Applied Social Psychology*, **28**, 1088–1106.
- Greenglass, E., Burke, R.J. and Ondrack, M. (1990) A gender-role perspective of coping and burnout. *Applied Psychology: An International Review*, **39**, 5–27.
- Greenglass, E., Fiksenbaum, L. and Burke, R.J. (1996) Components of social support, buffering effects and burnout: Implications for psychological functioning. *Anxiety, Stress, and Coping: An International Journal*, **9**, 185–197.
- Greenglass, E., Pantony, K.L. and Burke, R.J. (1988) A gender-role perspective on role conflict, work stress and social support. *Journal of Social Behavior and Personality*, **3**, 317–328.
- Greenglass, E.R. and Julkunen, J. (1989) Construct validity and sex differences in Cook-Medley Hostility. *Personality and Individual Differences*, **10**, 209–218.
- Greenglass, E. and Julkunen, J. (1991) Cook-Medley hostility, anger, and the Type A behavior pattern in Finland. *Psychological Reports*, **68**, 1059–1066.
- Hartley, J., Jacobson, D., Klandermans, B. and Van Vuuren, T. (1991) *Job Insecurity; Coping with jobs at risk*. London: Sage.
- Himle, D.P., Jayaratne, S. and Thyness, P. (1991) Buffering effects of four social support types on burnout among social workers. *Social Work Research and Abstracts*, **27**, 22–27.
- Hobfoll, S.E., Schwarzer, R. and Kym-Koo, C. (1996, August) *Disentangling the stress labyrinth: Interpreting the meaning of the term stress as it is studied*. Position paper presented at the First Meeting of International Society of Health Psychology, Montreal, Quebec.
- Kleinfield, N.R. (1996) A new and unnerving workplace. In: The New York Times Special Report, *The downsizing of America* (pp. 37–76). NY: The New York Times Company Inc.
- Latack, J.C. (1986) Coping with job stress: Measures and future directions for scale development. *Journal of Applied Psychology*, **71**, 377–385.
- Leiter, M.P. and Schaufeli, W.B. (1996) Consistency of the burnout construct across occupations. *Anxiety, Stress and Coping*, **9**, 229–243.
- Leiter, M.P. (1991a) The dream denied: Professional burnout and the constraints of service organizations. *Canadian Psychology*, **32**, 547–558.
- Leiter, M.P. (1991b) Coping patterns as predictors of burnout: The function of control and escapist coping patterns. *Journal of Organizational Behaviour*, **12**, 123–144.

- Leiter, M.P., Clark, D. and Durup, J. (1994) Distinct models of burnout and commitment among men and women in the military. *Journal of Applied Behavioral Science*, **30**, 63–82.
- Maslach, C., Jackson, S.E. and Leiter, M.P. (1996) *Maslach Burnout Inventory Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., Schaufeli, W.B. and Leiter, M.P. (in press) Burnout. *Annual Review of Psychology*.
- McGrath, A., Houghton, D. and Reid, N. (1989) Occupational stress, and teachers in Northern Ireland. *Work and Stress*, **3**, 359–368.
- Ogus, D., Greenglass, E. and Burke, R.J. (1990) Gender role differences, work stress and depersonalization. *Journal of Social Behavior and Personality*, **5**, 387–398.
- Rifkin, J. (1995) *The end of work*. NY: Putnam.
- Roskies, E. and Louis-Guerin, C. (1990) Job insecurity in managers: Antecedents and consequences. *Journal of Organizational Behavior*, **11**, 345–359.
- Rousseau, D.M. (1989) Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, **2**, 212–139.
- Schaufeli, W.B., van Dierendonck, D. and van Gorp, K. (1996) Burnout and reciprocity: towards a dual-level social exchange model. *Work and Stress*, **10**, 225–237.
- Schaufeli, W.B. and Enzmann, D. (1998) *The Burnout Companion to Study and Practice: A Critical Analysis*. London: Taylor and Francis.
- Schaufeli, W.B., Leiter, M.P., Maslach, C. and Jackson, S.E. (1996) MBI-General Survey. In: C. Maslach, S.E. Jackson, and M.P. Leiter (Eds.), *Maslach Burnout Inventory Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press, Inc.
- Schutte, N., Toppinnen, S., Kalimo, R. and Schaufeli, W.B. (2000) The factorial validity of the Maslach Burnout Inventory – General Survey (MBI-GS) across nations and occupations. *Journal of Occupational and Organizational Psychology*, **73**, 53–66.
- Schwab, R.L. and Iwanicki, E.F. (1982) Who are our burned out teachers? *Educational Research Quarterly*, **7**, 5–16.
- Schwarzer, R. (1993) *Measurement of perceived self-efficacy*. Unpublished manuscript. Berlin: Free University of Berlin.
- Seligman, M.E.P. and Csikszentmihalyi, M. (2000) Positive psychology: An Introduction. In Special issue on happiness, excellence and optimal human functioning. *American Psychologist*, **55**, 5–14.
- Shore, L.M. and Tetrick, L.E. (1994) The psychological contract as an explanatory framework in the employment relationship. In: C. Cooper and D.M. Rousseau (Eds.), *Trends in organizational behavior* (Vol. 1, pp. 91–109). Chichester, UK: Wiley.
- Solomon, K. (1982) The masculine gender role description. In: K. Solomon and N.B. Levy (Eds.), *Men in translation: Theory and therapy* (pp. 45–76). New York: Plenum.
- Taris, T.W., Schreurs, P.J. and Schaufeli, W.B. (1999) Construct validity of the Maslach Burnout Inventory – General Survey: A two-sample examination of its factor structure and correlates. *Work and Stress*, **13**, 223–237.
- Uchitelle, L. and Kleinfeld, N.R. (1996) The price of jobs lost. In The New York Times Special Report, *The downsizing of America*. NY: The New York Times Company Inc.