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SOME MODERATORS OF THE WORK STRESS - BURNOUT RELATIONSHIP

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Dissertation submitted to the Faculty of Arts, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Arts.

Johannesburg, January 1989

DECLARATION

I declare that this dissertation is my own, unaided work, and that it has not been previously submitted for any degree or examination at any other University.

Karen V. Dixon

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Karen V. Dixon

ABSTRACT

Two considerations prompted the subject of the present research. Firstly, emphasis is invariably made on the stressed or burned out individual after the fact: much of the existing literature involves describing the antecedents and effects of stress and burnout, and details strategies for the alleviation, treatment, control and management of stress rather than its prevention. Secondly, stress and burnout are never characteristics of the individual alone, but are a complex of factors that reflect features of the larger society. Yet some individuals in the common society are more adept at coping with stress than others. Instead of investigating extraneous support variables such as social and family support, the intention of the present study was to identify intra-personal support variables, that is, strengths already within the individual that might serve to protect the person from the effects of stress.

The present research is thus a pilot study that emphasises the psychology of the individual and takes a cognitive perspective, but does so within the social psychological framework by focusing on the relationship between environmental and personal factors.

A life events model of stress was adopted, incorporating stresses specific to students, for a sample of Master of Business Administration participants. Experienced stress was measured by recording its negative impact on individuals. Burnout was measured using the Maslach Burnout Inventory, which incorporates the emotional exhaustion, depersonalisation and personal accomplishment dimensions of burnout inherent in Maslach and Jackson's (1981) paradigm.

An interactionist approach to stress and burnout was used because it includes internal demands (such as need for achievement) and external demands (such as work load) confronting the individual in the work situation. This approach also recognises that stress is essentially an individual perceptual phenomenon, and that the personal experience of stress is reflected in terms of its physiological, cognitive and behavioural consequences.

Data was collected from two sets of questionnaires which were completed on a voluntary basis by white male students participating in the Master of Business Administration Programme at the Graduate Business Schools of the University of Cape Town and the University of the Witwatersrand. The statistical analysis, which used a moderated multiple regression technique and analysis of covariance, showed that the personality variable of hardiness significantly moderated the relationship between work-related stress and the emotional exhaustion dimension of burnout. Self-efficacy belief contributed to the variance in emotional exhaustion.

The findings were discussed and some avenues for future research were suggested. Theoretical and practical applications of the research findings were also considered. It was concluded that hardiness represents an important intra-personal resource which enables individuals to cope more effectively in highly stressful conditions. This variable has potential for enhancement, particularly once it is recognised and acknowledged by the individual, so strengthening the individual against the development of burnout.

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Merrick Abel, for his subtle combination of carrot and stick, but above all for his patience, tolerance and encouragement - the greatest support I could have.

QUESTION:

How many workers are needed to change a light bulb in a high stress, high frustration work environment?

ANSWER

A minimum of nine:

- two of whom did not make it in to work (one was sick and the other took a mental health day);
- one who was too hung over and another who was too depressed to notice the bulb was out;
- two who wouldn't do it because they were arguing over who didn't do it last time;
- one who broke an arm attempting to change the bulb (that was after another dropped the new bulb);
- finally the bulb was changed by an exasperated supervisor with high blood pressure, prior to her heart attack.

(Adapted from the epilogue to:
WORK STRESS AND BURNOUT, 1982,
edited by Whiton Stewart Paine)

"Friend, don't be a perfectionist. Perfectionism is a curse and a strain."

(Fritz Perls, in:
Freudenberger, H.J., BURNOUT,
1980, Arrow Books)

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I INTRODUCTION

1. STRESS IN INDUSTRY - AN OVERVIEW

During the decades following World War II, work-related stress has become a focal point for concern, as is evidenced by the still increasing body of research, popular press articles, books and seminars. By way of example, local stress management seminars have become commonplace, and regular articles on stress appear in both local and overseas business journals. By the beginning of the 1980's conservative annual estimates for absenteeism, health insurance and performance decriments, all of which may be considered stress-related, came to approximately $100 billion in the U.S.A. alone (Pavett, 1986). In all likelihood, it was the increasing costs to industry that prompted the initial interest in occupational stress; moreover, as all economies of the western world and socialist or communist oriented countries are characterised by an overburdening drive toward increased productivity and cost efficiency, the phenomenon of work-related stress is today a subject of great concern.

In terms of cost, South Africa is no exception. Once rated as having one of the fastest economic growth rates in the world (Nattrass, 1981), in recent years it has endured considerable losses to both productivity and cost efficiency and has suffered a severe decline in economic growth. Its industrial productivity is continually faced with growing losses on two main fronts, not only at the manual labour

level with the increasing incidence of strikes, labour disturbances, accident-related losses and public holidays, but also at the executive level with its preponderance of pressure-related and health disorders. At the executive end of the productivity scale, such losses and their incumbent costs to industry are harder to measure than at the labour end, for which statistics are readily available. The time involved in bearing costs is also a factor. Strategies such as collective bargaining and government legislation may in most cases be used to settle the labour problems relatively quickly, but industry can least afford the type of losses which entail long term effects and which can be sustained throughout the working environment: in the present context, those characterised as the stress-related losses.

Costs of stress for industry are depicted via such factors as constantly rising medical expenses, increasing accident rates, increased absenteeism and reduced productivity, as well as a general deterioration in the quality of working life for the majority of people. A further concern is the physical and psychological effects of stress for the individual. Indications are that such costs to individuals, organisations, and society as a whole, are probably still increasing (Paine, 1982). Though there is no accurate measure of the percentage cost which directly results from stress-induced or stress-aggravated illnesses in the U.S.A., between $20 billion and $26 billion annually is accountable for through absenteeism, hospitalisation and the death of managers. The bottom line figure is estimated in excess of $100 billion per annum (Matteson and Ivancevich, 1982). From the industrial viewpoint, then, work-related stress is currently acknowledged as an extremely serious issue.

From a different perspective, psychologists in recent years have ascribed increasing importance to the relationship between job stress, and psychological and physical health. This burgeoning interest is apparent from the number of academic books appearing in the area of stress, stress management programmes, literature aimed at the business sphere, and a plethora of books emanating from the popular press which are directed at both businessman/manager and layman. While many of the latter publications deal with the alleviation of stress in our everyday and working lives, many popularise theories as to the causes of stress, and so carry psychological overtones. An increasing number of publications are now also addressing the problem of burnout, because this represents a serious deterioration in psychological and physical health which can be directly attributable to job stress.

Two relatively recent publications which proved particularly popular dealt with the effects of rapid technological change in western society. Naisbitt's (1984) 'Megatrends' examined technological advances and how these might transform human lives during the following decades, while Toffler (1970) coined the phrase 'future shock' for a disease suffered by people overwhelmed by the rapidity of change. In many ways Toffler was anticipating what we now recognise as burnout. He described 'future shock' as a disease which affects the individual both physically and psychologically, and maintained it epitomises technologically advanced cultures where the accelerating rate of socio-industrial change outstrips the human ability to adapt. In much the same way, burnout also affects the physical and psychological dimensions of individuals who are experiencing considerable stress; in attempting to accommodate themselves to this stress they suffer similar symptoms. They then try to cope with

strains such as tension and fatigue through various psychological mechanisms that include emotional detachment, cynicism and withdrawal, which in turn resemble burnout. This process is described in Cherniss's (1980) transformational model of burnout.

Burnout represents one of the outcomes of job stress that is presently attracting a great deal of interest among management and organisations, although it received little publicity prior to the late 1970's. Within the last decade, however, there has been a tremendous surge of research and literature concerning the topic, apparent from the proliferation of articles, numerous books, and professional conventions (for example, Cherniss, 1980; Farber, 1983; Freudenberger, 1980; Maslach, 1982a, 1982b; Maslach and Jackson, 1981, 1984a, 1984b; Paine, 1981, 1982; Pines and Aronson, 1981). The mass media has given burnout extensive coverage in the U.S.A., and newspapers regularly reprint scales allowing readers to assess whether they, too, are 'burned out' (Shinn, 1982).

Burnout has finally been recognised as a legitimate issue in its own right, and represents a particular condition synonymous with the stress syndrome (Paine, 1982). The current approach regards burnout as an urgent social problem warranting further research, which not only affects the individual but has real consequences impeding the accomplishment of organisational goals (Maslach and Jackson, 1984b; Zimbler et al, 1985).

Burnout therefore forms the core of the present research. Much is already known about the causes and antecedents of burnout, and as it is already a serious problem much is being done to counter its effects in both the caregiving and industrial spheres. However, relatively less research has been directed toward its prevention, although stress management (for example, Freudenberger. 1982; Tubesing and Tubesing, 1982) and organisational development (for example, Golembiewski, 1982; Pines 1982) have recently become major issues. It is intended that the present study will take the form of a pilot investigation into personality characteristics which might help to prevent burnout. By lessening the likelihood of burnout in the individual, repercussions on the organisation and industry should also be reduced.

Burnout is most succinctly described as a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment which is debilitating for the individual. Burnout usually occurs where the work involves other people in some capacity (Freudenberger, 1980, 1983; Golembiewski et al, 1983; Maslach and Jackson, 1984a). The focus on people as the sole source of emotional strain is not entirely valid, because emotional feelings and negative reactions to work may equally occur where products instead of people are involved (Maslach and Jackson, 1984a). However, burnout is always related to specific conditions: it develops as a consequence of prolonged exposure to certain job stressors or chronic day to day stresses, and it is produced by both external and internal factors (Maslach, 1982a). Role overload is almost inevitably the most serious source of strain.

Persons experiencing burnout develop symptomatic negative and inappropriate attitudes toward their clients/associates and themselves when they work in stressful environments. The condition is serious because it prevents not only the person from operating productively, but also the organisation (Maslach and Jackson, 1981, 1984a, 1984b). Burnout starts at the individual level when one's emotional resources become depleted. The individual then feels that he or she can no longer give any more at the psychological level, and so enthusiasm wanes and there is little or no desire to tackle the particular job at hand.

However, the effects of burnout are not confined to the individual. Apart from costs related to the individual (treatment and/or replacement), a further reason why burnout is of such serious concern to industry is because it entails many integrative effects. The ramifications of burnout filter from the personal level, through to the interpersonal and institutional levels (Maslach, 1982a). Not only the actual sources of burnout, but also its deleterious effects, are to be found at every level: individual, organisational, and societal (Cherniss, 1980; Maslach, 1982a).

In addition, complex interactions can occur between these levels (Cherniss, 1980; Maslach, 1982a; Zimbler et al, 1985). For example, there are sociogenic, or environmental consequences of chronic stress and burnout. These contribute to interpersonal conflict both in and out of the workplace, poor communication and interaction, less productivity and increased absenteeism (Zimbler et al, 1985).

In analysing the dimensions of burnout, therefore, it is not merely a matter involving individuals, where certain types of individuals are unable to handle certain jobs, nor is it simply the nature of the job which is the stressor, irrespective of those who perform it (Maslach 1982a). Rather, the process is integrative. The stage may be reached where, through the specific nature of the job and unreasonable job pressures combined with interpersonal stressors, the interactive effects of all these factors contribute to organisational burnout (Zimbler et al, 1985).

It follows that a related reason for the increasing interest in burnout is that while burnout is very costly for the individual it is also very costly for organisations. Given the high cost in terms of lost idealism, turnover, tardiness, absenteeism, and poor delivery of services, as some examples, the very prevention of burnout is in organisational interests (Pines, 1982). Individual burnout is serious enough, but a burned out organisation could be described as one where a discernable drop in morale, initiative, job satisfaction and energy has set in, along with a decline in group cohesion and interdepartmental co-operation. Apathy and 'scapegoating' are prone to develop, and the overall result is antagonism towards the company and a decline in profits (Zimbler et al, 1985).

Though burnout can be investigated from a clinical perspective, this results in a tendency to emphasise the individual, rather than the integrative effects at organisational level. From the industrial psychologist's viewpoint the clinical perspective therefore has

limitations, and consequently it is of more value to consider research in terms of an organisational perspective. This has typically considered burnout from the framework of job stress, job satisfaction and turnover (Maslach and Jackson, 1984). The present study uses the aspect of job stress as the main factor, and seeks to discover whether certain personal variables are capable of moderating the relationship between this type of stress and burnout.

Burnout has aroused managerial interest because very many aspects of the work environment contribute to its development (Shinn, 1982). A positive correlation has consistently been found between burnout and job overload (Pines, 1982) and job overload therefore appears to be one of the most significant stress factors in the development of burnout. Bureaucratic pressures, in addition to a lack of feedback, autonomy and appreciation, are also frequently documented as stress-producing variables significantly related to burnout (Cherniss, 1980; Etzion 1984; Kafry and Pines, 1982; Hall and Savery, 1986; Maslach, 1982a, 1982b; Pines and Aronson, 1981). Stress contributes to strain, and efforts by individuals to cope with that strain lead to the emotional detachment and withdrawal commonly associated with burnout. Therefore, in order to understand and ultimately prevent burnout, management is also concerned with finding all possible causes of organisational stress (Cherniss, 1980).

The most notable stresses endemic to organisational structures are role ambiguity, role conflict, and most common of all, role/job

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The most notable stresses endemic to organisational structures are role ambiguity, role conflict, and most common of all, role/job

overload (Caplan and Jones, 1975; Cherniss, 1980; Cooper and Marshall, 1980 French and Caplan, 1972; Kahn, 1974; Maslach, 1976; Pines, 1982). The work environment may impose both quantitative and qualitative overload, where quantitative is the result of having too many tasks to accomplish in the prescribed time period, and qualitative is the result of tasks proving too difficult for the individual (Pines, 1982). The greater overload of either type present, the more likely have individuals been found to burn out, with correlations in the order of $r = 0,30$, and $r = 0,35$ (Pines, 1982).

As overload is a significant stress factor in burnout, the present study specifically utilizes a work environment characterised by both quantitative and qualitative overload. This is expected to increase burnout occurrence. The context chosen is a full time Master of Business Administration (MBA) programme, and the subject sample comprises potential managers, the MBA students. The design of the study is longitudinal, so that continued work overload becomes instrumental in precipitating burnout among the subjects over a period of time.

Qualitative overload, because it applies to increasingly complex work requiring skills or abilities that are beyond the individual's current level of functioning, may be a consequence of over-promotion, and may in turn lead to role ambiguity and role conflict. One of the categories of personnel that could be regarded as particularly susceptible to this type of overload, as well as to quantitative overload, is the managerial contingent. In fact executives and managers are particularly vulnerable to stress, and subsequently to burnout, for a number of reasons.

A principle reason is that corporate managers represent one of the most highly pressured work groups, because the very pressures and dynamics of the managerial process are inherently stress-producing in nature. Very often work has an intrinsic rather than extrinsic value for executives (Strümpfer, 1983a) and they look to work activities for fulfilment of their more important needs. There are more vague and abstract types of responsibility for executives, such as investment of others' money, and care for employees, than for other people. Executives and managers do not usually have the protection of a union, and differences have to be settled personally, often with dismissal or resignation as the only alternative options. Lastly, many avenues of stress release are denied managerial staff: where absenteeism, labour turnover, sabotage, violence and blatant flouting of social mores may be understandable among low level workers, these behaviours would be censured for managerial and executive staff (Strümpfer, 1983a).

The manager's lot is particularly difficult in that he is beleaguered by demands both from superior executives, and also from government agencies, subordinates and union representatives endeavouring for a greater say in the running of the organisation. These multidimensional pressures frequently lead to demands and strains that can induce stress-related illnesses, (Hall and Savery, 1986).

However, white managers in South Africa are vulnerable to additional sources of stress, and qualitative overload provides an example of how over-promotion may arise. There is an extraordinary shortage of high level human resources in the country (Hanson and Bellis, 1983; Star

Newspaper, 1987; Strümpfer, 1980, 1983a; S.U.I.F.R., 1987; Zimbler, 1983). Apart from an insufficient number of managers, there is also a chronic shortfall in the professional, semi- professional, scientific and technical categories, which all impinge on managerial job demands.

In 1980, the two categories 'professional, technical and related workers' and 'administrative and management workers' represented a combined total of 8,8% of the economically active population in South Africa, compared with nearly 25% in the U.S.A., almost 15% in the United Kingdom, and 17% in Australia. Strümpfer (1983a, 1983b) contends that this shortage of managers represents an as yet underutilisation of black human resources: at present only about 0,2% of South African managers are drawn from the coloured, Indian and black population groups (Zimbler et al, 1985). With virtually no managerial reserve left amongst the white labour force, the present situation encourages the promotion of unsuitably qualified people to high level positions.

As mentioned previously, job overload is always correlated with burnout, (Pines, 1982). However, an overload of work stress can also lead to burnout symptoms (Cherniss, 1980) and the following argument will demonstrate why burnout may become particularly notable in the South African work context. Using a global survey, Cooper and Arbose (1984) have found in their research on managers and executives, that while stressors and symptoms may vary between countries, the actual incidence of stress in these groups is universal. Managerial stress

is definitely not limited to the affluent industrialised western world. Though Cooper and Arbose (1984) refer to South Africa as an industrialised country, its stress profile is in some ways closer to that of developing countries. Executives in Japan, and in developing countries such as Brazil, Nigeria and Egypt, exhibit a higher incidence of stress-related disorders than do their western counterparts. The South African situation appears to accord with that of Japan.

The South African executive is far more stressed than his western counterpart, and is more subject to depression than all but his British equivalent. TABLE 1 compares the overall mental stability of South African executives with those of the United Kingdom, Sweden, Germany and the U.S.A., although it was not reported whether the differences in mental stability across countries were statistically significant. South Africa has already been described as one of the most psychologically ill societies in the world (Star Newspaper, 26.10.1987). The root causes are all stress-related and come from socio-political pressures, managerial problems and a lifestyle endogenous to South Africa. The outcomes suggest a high incidence of depressive symptoms, to which burnout is closely related.

TABLE 1: Comparative Mental Stability

	Percentage/Countries				
	U.K.	Sweden	Germany	U.S.A.	R.S.A.
Potential instability	15,4	11,0	7,2	18,5	19,5
High risk of instability	7,0	0,7	1,8	0,0	5,7
Unstable	1,4	1,4	1,8	0,0	2,8
Severe instability	1,4	1,4	0,0	0,0	0,0
Country total	25,2	14,5	10,8	18,5	28,0

Table derived from Cooper and Arbose (1984)

TABLE 2 identifies the sources of pressure that executives and managers perceive as their key stressors (Zimbler et al, 1985). Apart from 'work overload', 'taking work home' and 'the amount of travel required by work' all the stressors were perceived as greater sources of pressure for South Africans than for executives from other countries. However, other studies conclude that 'workload' and 'long hours' constitute substantial stressors[1].

1 De Beer indicated 'workload', and Strümpfer indicated 'long hours' as considerable stressors in individual papers presented at the Conference "Wellness at Work: Psychological Aspects of Health Enhancement in Occupational Settings". (1983b)

TABLE 2: The roots of management stress

	Britain	Sweden	Germany	Japan	Singapore	United States	Nigeria	South Africa	Brazil	Egypt	TOTAL
Time Pressures and deadlines	61,5	53,8	65,4	41,8	55,3	46,5	54,0	59,1	61,8	45,0	55,3
Work overload	57,3	55,9	59,4	41,8	44,7	53,5	50,4	48,2	38,1	76,7	51,6
Inadequately trained subordinates	13,1	20,0	36,4	24,6	47,0	25,6	56,7	36,5	41,2	65,0	36,4
Long working hours	26,6	33,8	27,3	26,1	22,3	30,2	40,5	34,3	19,6	23,3	29,0
Attending meetings	21,7	21,4	23,6	20,9	25,9	16,3	25,2	28,5	27,8	20,0	23,6
Demands of work on my private and social life	18,2	31,7	19,1	14,9	12,9	16,3	30,6	29,9	13,4	26,7	22,1
Demands of work on my relationship with my family	22,4	26,9	25,4	11,2	12,9	16,3	29,7	29,2	8,2	25,0	21,4
Keeping up with new technology	25,9	19,3	14,5	32,8	20,0	13,9	18,0	21,9	24,7	10,0	21,4
My beliefs conflicting with those of the organization	20,3	14,5	21,3	20,1	21,2	30,2	26,1	24,8	16,5	13,3	20,6
Taking my work home	17,5	29,6	16,4	13,4	15,3	27,9	19,8	19,0	15,5	30,0	19,7
Lack of power and influence	20,3	11,0	19,1	17,9	22,3	46,5	20,7	22,6	18,5	11,7	19,5
Interpersonal relations	15,4	14,5	15,4	29,8	12,9	13,9	16,2	24,1	25,8	23,3	19,4
The amount of travel required by my work	16,1	20,0	18,2	18,7	20,0	16,3	29,7	16,8	9,3	16,7	18,4
Doing a job below the level of my competence	13,3	10,3	20,0	18,7	12,9	18,6	23,4	20,4	23,7	20,0	17,7
Incompetent boss	9,1	11,7	19,0	13,4	16,5	30,2	18,0	16,1	16,5	20,0	15,6
Number of respondents	143	145	110	134	85	43	111	137	97	60	1 065

Totals do not add to 100% because of multiple answers

From Zimbler et al (1985: 25)

From TABLE 2 it may be seen that South Africa, possibly with Germany, again reflects the developing rather than the industrialised countries in terms of experiencing problems related to dealing with 'inadequately trained subordinates'. A prime source of stress for the white South African manager is the sheer number of subordinates for whom he is responsible (50 on average) compared with Australia (14), Japan (12), and the U.S.A. (16), and this figure is expected to rise to at least 76 by the turn of the century (S.U.I.F.R., 1987; Zimbler et al, 1985). In light of the earlier discussions on technological advancement, 'keeping up with new technology' and 'time pressures/deadlines' do not exhibit the major difficulties that may have been expected. However, this aspect may change in the near future as a result of sanctions and an increasing number of individuals of managerial and executive calibre leaving the country. A recent comment by Dallamore (1987) suggested that:

> "On those that are left pressures are so great and getting greater all the time that it is doubtful whether in the long term they will be able to stay the course." (in Business Day, 26.10.1987: 12).

The foregoing examples depict a scenario characterised as an overload of work stress, which in all likelihood will increase the incidence of burnout among white managers in South Africa. The present research is therefore timely in that it uses a population of potential managers as its subjects. Should the results prove to be of value, similar research studies could be aimed at the emerging class of black managers in South Africa.

It has been shown that as urban blacks are drawn into the western type of lifestyle they become increasingly vulnerable to similar stress-related disorders as whites, such as coronary heart disease (CHD) and duodenal ulcers (Strümpfer, 1983a). This category of stress-related diseases is a further cost factor for industry amounting to at least R750 million per annum, and it is already a major concern for white South African males (Zimbler et al, 1985), see TABLE 3. It is possible that blacks may yet follow a similar pattern.

TABLE 3: South African coronary heart disease (CHD) mortality rates for white working males versus other countries

	Age groups (years)							
	25-23		35-44		45-54		55-64	
Country	Rate(1)	Ratio(2)	Rate	Ratio	Rate	Ratio	Rate	Ratio
South Africa	23,1	-	163,0	-	491,8	-	1 118,0	-
U.S.A.	9,3	2,5	87,3	1,9	336,0	1,5	910,0	1,2
Finland	6,7	3,4	113,3	1,4	40[illegible],1	1,2	1 005,3	1,1
Sweden	3,2	7,2	23,0	7,1	136,[illegible]	3,6	506,4	2,2
England/Wales	6,4	3,6	63,7	2,6	259,1	[illegible],9	705,4	1,6
West Germany	4,2	5,5	48,1	3,4	201,4	2,4	564,0	2,0
France	2,5	9,2	21,1	7,7	65,8	7,5	206,3	5,4
Australia	6,7	3,4	67,0	2,4	257,4	1,9	910,4	1,2

(1) Mortality rate per 100 000

(2) Ratio of S.A. rate/rate of other country

From Zimbler et al (1985: 27)

Black managers are already susceptible to the same industrial stressors as their white counterparts, but at present they frequently have to contend with additional stressors such as educational deficits and lack of business experience and culture (Zimbler, 1983; Zimbler et al, 1985). It has already been argued in this introductory section that white managers are particularly vulnerable to burnout as a result of industrial pressures peculiar to South Africa, and this may prove to be the case for blacks as well, although blacks are known to experience certain dimensions of burnout differently from whites (Maslach, 1982a). However, as South Africa is committed to a dependence on integrated manpower development, a pilot study on potential white managers is justified prior to a similar study aimed at potential black managers.

In this overview of industrial stress, the foregoing has considered a number of stressors which especially apply to South African executives and managers. Though seemingly diverse, two common factors predominate to link them. First, all the stressors are cognitively appraised as stressors, whether taking the form of technological change, various types of overload, shortage of managerial staff, excessive responsibility for personnel, and so on. Managers perceive demands, and have perceptions about their own capability to cope with those demands. Very frequently in the managerial context there is an imbalance between the perceived demands and capabilities, that results in stress. This imbalance may be more clearly apparent in the South African environment than elsewhere. The results are emotional experiences, and psychological and physiological stress responses. Burnout may be conceptualised as a response which incorporates all three dimensions of stress response, and which constitutes strain.

Secondly, the psychological (which may be subdivided into cognitive defence techniques and behavioural responses) and the physiological responses to stressors operate a feedback mechanism. This means that these particular responses serve to reactivate or detrimentally exaggerate original perceptions of demand and capability, so exacerbating them and causing the individual to experience even more increased stress than before.

Basically, this model of stress, known as the Cox-Mackay (1976) transactional model (FIGURE 1), is very similar to what happens during burnout, and is comparable to Cherniss's (1980) burnout model. Both of these models will be reviewed in more detail, and are the most appropriate for conceptualising stress and burnout in the present study.

Not only is the appraisal of stress a cognitive function, but so also are the methods of coping with it. In light of the work-related stressors that have been mentioned, individuals might become more adept at dealing with the difficulties they face if they could more effectively mobilise their own personal resources. If the disposition to hardiness, the need or motive to achieve, and general competence or efficacy were increased to cope with perceived stressors, the downward spiral of work-related stress leading to the strain of burnout might be mediated. These variables would appear the most appropriate resources to deal with the types of work stressors mentioned.

Burnout is a universal phenomenon that can be experienced by everyone. Some individuals, however, are less susceptible to burnout

than are others, and the purpose of this research study is to find out whether hardiness, achievement motivation and self-efficacy belief specifically temper the experience of work stress and burnout among white males of managerial calibre. Its hypothesis proposes that these personality variables play a role in mitigating the onset and degree of burnout, to the extent that they act as moderators of the stress-burnout relationship.

Should the results support this proposition, there is future scope for individuals to be made more aware of their personal potential for dealing with occupational stress, and subsequently obviating burnout. From the industrial viewpoint stress-related costs could be lowered. Another advantage could be the timeous identification of those job-seeking individuals who might prove to be burnout-prone when employed.

In view of the individual variation in the experience of stress and burnout, it is opportune to now examine these concepts in some detail, and to look at ways in which individuals handle stress. Burnout may in fact represent a deterioration in the ability to cope with stress in an appropriate and successful manner.

2. STRESS, COPING AND BURNOUT

2.1 The three concepts

Because burnout is always an outcome of unmediated stress (Farber, 1983) it is an appropriate point to explore the two concepts in greater detail, and to give some explanation as to how the individual attempts to cope with the situations.

'Stress' is a vernacular word, common in western society, which has frequently been used in a loose manner to cover a diverse range of situations and experiences: consequently there is a problem in the correct definition of the term. Firstly, 'stress' has typically been confined to descriptions of unpleasant 'mental' events, with little or no consideration of the physiological dimension (for example, "he is stressed", "she's under a lot of stress", "I can't handle the pressure"); secondly, the term has also generally been confined to describing only the agents of distress and the consequences of distress.

In fact, 'strain' would often be a better choice of word than 'stress'. For example, it is the individual's own cognitive interpretation that allows 'environmental stress' to be so appraised, and in this case 'environmental strain' would constitute a better term (Hamilton, 1979). 'Stress' is associated with a wide array of daily

events and this has added to the confusion regarding its true concept. It covers environmental demands such as pressures due to intensive housing and urban infrastructures, and it covers intra-individual pressures such as anxiety, excessive wealth or poverty, dissonance, motivation and physical demands (Chalmers, 1981; Cox, 1978). In the occupational sphere it includes fatigue, repetition, interpersonal communication problems, role ambiguity and overload, responsibility and challenge (Chalmers, 1981; Cherniss, 1980; McLean, 1979). Because 'stress' is applied to such a diversity of experiences, use of the term limits discrimination between situations, emotions and cognitions, and so a finer definition is required.

Clearly, more is involved in the understanding of 'stress' than the meaning confined to human response. What is needed in terms of the present study is a comprehensive framework to explain how and why 'stress' occurs for the individual, at what point he or she interprets a situation as 'stressful', and how and why adjustment to the condition is made. In other words, a model should be adopted that accounts for interaction between person and environment.

Person-environment interaction involves intervening psychological processes, and this represents a realistic and comprehensive approach for understanding 'stress' (Cox, 1978). The perspective developed by McGrath (1970) expresses the view that stress arises through the existence of a particular relationship between the individual and his environment. Four stages are stipulated in his model to illustrate

the sequence of any stress event:

(1) the demand stage, which encompasses the input or environmental 'stress' situation acting on the organism;

(2) the reception, cognitive appraisal, perception or recognition stage, where the demand is consciously or unconsciously recognised;

(3) response to the perception of the stress situation, where the organism responds on physiological, psychological, behavioural or social interactive levels;

(4) the consequences of response for both organism and environment. Here only the consequences that are perceived by the individual are experienced as 'stress'.

A key issue in this approach lies in the uniqueness of the individual taking part in the transaction. Persons vary in their appraisal and experience of stressful events, and also in their attempts to control these events as part of adjustment. The alleviation of stress involves establishing control over the situation in order to minimise unpleasant strains. It follows that the individual, in his or her unique way, has to recognise impending conditions, and organise personal resources according to the consequences which are envisaged. In effect, a method of control is evolved in order to attempt a return to the homeostatic condition (Fisher, 1984).

The only way to establish control is via cognitive processes and so it follows that the most fruitful way to understand 'stress' is within a cognitive paradigm. Cognitive factors are acknowledged as being of

prime significance in contemporary psychological trends, and they have led to the formulation of cognitively-oriented theories that explain behaviour in terms of direct, vicarious, and symbolic sources of information (Mahoney, 1974; Michenbaum, 1977). Individual perceptions and methods of stress control are therefore best encompassed by a cognitive approach.

The Cox-Mackay (1976) transactional model is a psychologically based approach to stress, embodying cognitive elements and the principles of person-environment interaction (Cox, 1978). Any stress event is conceptualised as involving five stages, the first four of which are sequential and correspond with the McGrath (1970) theory.

The fifth stage can occur at any point and is a 'feedback' process. Stress occurs through a balance or imbalance resulting from the interaction of four components: internal needs and values, personal resources or capabilities, external environmental demands and constraints, and external supplies and supports. FIGURE 1 presents a depiction of the dynamics of the Cox-Mackay (1976) model.

In the model, stress is conceptualised as "an individual perceptual phenomenon rooted in psychological processes" (Cox, 1978: 18). Unlike McGrath, Cox includes into his diagrammatic depiction of the process the concept of stress being: "an imbalance between the perceived demand and the person's perception of his capability to meet that demand" (Cox, 1978: 18). As the individual makes his or her cognitive appraisal, and possibly perceives his or her limitations, it

is the actual recognition of the imbalance between demand and capability that gives rise to the experience of stress. Balance/imbalance is not between demand and actual capability, but between perceived demand and perceived capability.

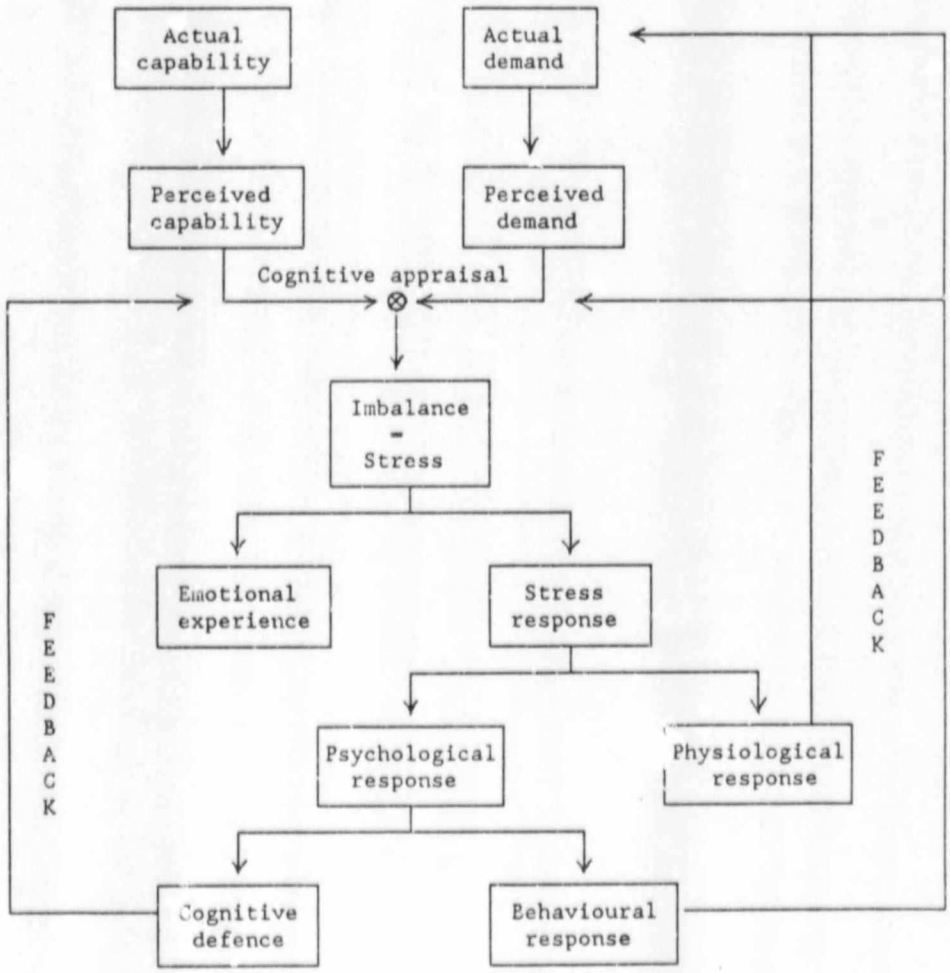


FIGURE 1: Transactional model of stress (Cox and Mackay, 1976).

The model explicitly presents 'actual capability' and 'perceived capability', 'actual demand' and 'perceived demand' as the inputs of the stress experience. In the present study, which includes an individual's assessment of the demands inherent in a Master of Business Administration (MBA) Programme, stress could develop if a discrepancy arises between self-efficacy belief and manifest ability. Perceived capability is viewed as analagous to self-efficacy belief. Self-efficacy belief is equivalent to efficacy expectations and response-outcome expectancies, and is regarded as a common cognitive mechanism underlying behavioural change (Bandura, 1977). As such, its role as a behavioural moderator will be investigated regarding its capacity to help the individual cope with stress and prevent burnout. In differentiating between the two types of expectancy, Bandura stipulates that efficacy expectation refers to "... the conviction that one can successfully execute the behavior required to produce the outcome" (Bandura, 1977: 195) while response-outcome expectancies refer to "... the estimate that a given behavior will lead to certain outcomes" (Bandura, 1977: 195).

In terms of the Cox-Mackay (1976) stress model, the individual is in effect making a cognitive appraisal (perceived demand), assessing the ability to cope (weighing up perceived capability), and envisaging an appropriate plan of action in order to resolve the situation. To reiterate, stress will arise from the imbalance between the 'perceived' categories. The individual whose self-efficacy belief is unrealistically high could undergo an unnecessarily stressful experience (actual demands may be high, perceived demands are low, perceived capabilities are inordinately high, actual capabilities may

be lower than realised). Conversely, the individual with realistic self-efficacy beliefs backed up by actual capabilities should retain a balance and not suffer undue stress: in this instance a belief in one's abilities may mediate stress. Using a similar argument, too strong an achievement motive could result in exacerbated stress for the individual.

The model also explains how this already intense stress may develop into the burnout condition, via the 'feedback' mechanism. The feedback stage can occur at all stages in the stress system, and demonstrates that stress can take the form of both stimulus and response in effectively shaping the outcome at each of those stages, see FIGURE 1. One of the most important examples of feedback concerns the effectiveness of the individual to cope: for example, if either of the responses relating to behaviour or physiology are inappropriate or ineffective, the individual will again be faced with either an 'actual demand' situation (which then leads through the process of 'perceived demand' again before cognitive reappraisal takes place) or a direct repeat of the 'cognitive appraisal' situation. Dependent upon the balance/imbalance perceived, there will be either a decrease, or a prolonged and even increased experience of stress.

It is at this point that abnormal coping is most likely to occur (Cox, 1978) and this may accelerate the development of damage. It is suggested (Cox, 1978) that as a result of a prolonged or severe stress experience, the psychophysiological mechanism of the individual is affected. An example is severe burning: abnormally high blood-glucose levels may be produced (response to the stress) which, if maintained for any period, tend to damage the regulatory mechanism

for blood glucose. As a result the victim of such burning could become diabetic (Cox, 1978). Stress, in terms of the feedback process, is therefore equivalent to an intervening variable with self-reinforcing properties (Chalmers, 1979; Cherniss, 1980; Cox 1978).

Unmediated stress almost inevitably leads to burnout (Farber, 1983), and the Cherniss (1980) transactional definition of stress and burnout presented in model form (FIGURE 2) has been adopted to illustrate this relationship. The first stage involves the imbalance between resources and demand (stress) which corresponds to the cognitive appraisal point in the Cox-Mackay model; the second stage is the immediate, short-term emotional response to this imbalance, typically characterised by feelings of anxiety, tension, fatigue and exhaustion (strain). The third stage comprises changes in attitude and behaviour which amount to defensive coping methods or psychological accommodation of the strain that has developed. Emotional detachment helps to conserve energy for the whole coping process. The important point is that strain cannot, in the individual's coping capability, be alleviated through active problem solving (Cherniss, 1980), and the stress prolongs and increases until the condition of burnout develops.

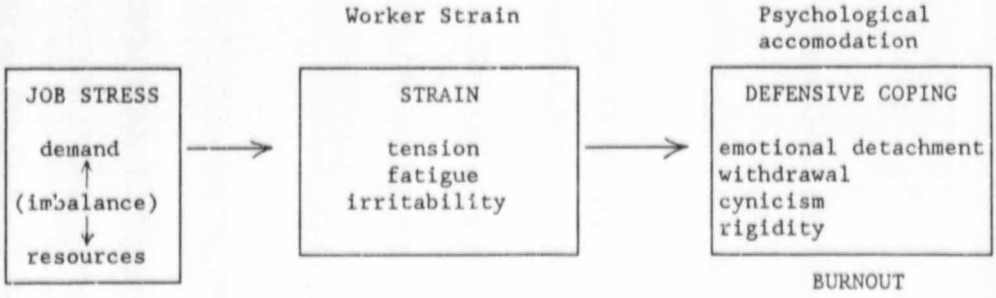


FIGURE 2: Transactional definition of burnout
From: Cherniss (1980: 18)

In effect, burnout develops because of the demand-capability discrepancy, where demand has exceeded the adjustment resources related to the psychology of the individual. The middle and final stages of the Cherniss model may be viewed as comparable to the Cox-Mackay feedback mechanism where stress takes the form of both stimulus and response. While the Cox-Mackay (1976) transactional model of stress has proved to be the most satisfactory in fulfilling the requirements made earlier for a comprehensive model, it is complemented by the Cherniss (1980) transactional definition of burnout which demonstrates specifically how job stress can give rise to burnout.

It has been proposed that burnout itself constitutes a method of coping (Cherniss, 1980; Freudenberger, 1980; Gaines and Jermier, 1983; Maslach and Jackson, 1984a, 1984b). Here the work of Lazarus is of heuristic value, because he details the psychological processes involved in coping. Lazarus (1966, 1976, 1981) views psychological stress as requiring a judgment verifying that environmental and/or internal demands tax or exceed the individual's resources for managing them. Lazarus draws particular attention both to the person's appraisal (judgment) of his or her situation, and to the actual management (coping) of stress. He contends that coping is best considered as a form of problem-solving in which the person's wellbeing is at stake, yet he or she is not sure quite what to do (in Cox, 1978). The coping strategy which is ultimately adopted accounts for the subsequent health of the individual (Cox, 1978; Holroyd and Lazarus, 1982). If burnout constitutes the coping strategy, the individual experiences a deterioration in his or her psychophysiological mechanisms.

Appraisal varies with each individual, as does coping. By way of an example, a deprived environment or trauma early in life can weaken a person's belief that he or she can exercise control in a situation, or it can lead to lowered self-esteem, if the individual is genetically vulnerable to these predispositions (Fisher, 1984). This person will appraise future situations differently from those individuals who have not undergone similar deprivation or who are not influenced by the same biological factors. The re-evaluation of both demand situations and coping resources determine the specific reactions people will have to stress, their emotions, and their methods of coping (Lazarus, 1966, 1976, 1981).

Lazarus distinguishes between the two types of appraisal, primary and secondary. The first evaluates a situation as stressful if it involves harm or loss, threat or challenge, whereas secondary appraisal involves ongoing evaluations of alternative coping strategies that could be deployed. Lazarus emphasizes the close link that exists between challenge situations and stress control. In primary appraisal, a demand may be viewed as undesirable and potentially harmful, in which case it is perceived as a threat. If the demand is viewed as presenting an opportunity for gain or mastery, however, it is perceived as a challenge. Inherent in challenge is the implication that the individual has mastery over the outcome of the demand situation, and Lazarus maintains that those who appraise such situations as challenges rather than threats are invariably confident of being able to adapt to demands that are stressful. Those who tend to be challenge-oriented should therefore cope more successfully with stress, and the work of Kobasa (1979, 1982) and her colleagues has indicated this to be the case.

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It does appear, however, that there is variation in individual resilience to stress, as may be evidenced by the traits of optimism and pessimism. Furthermore, the degree of stress presented can act as a motivator. Some stress is necessary to stimulate the individual (eustress) but for the optimist its presence enhances the element of challenge. There are also some individuals who deliberately seek more stress than others in an attempt to stimulate performance. Among them are students who accumulate workloads, and those who become impulsive risk-takers (Zimbler et al, 1985).

In the context it is helpful to consider various methods of stress control in terms of Lazarus's conceptualisation of coping. According to Lazarus (1966, 1976, 1981) coping involves two processes, and in so doing it serves the two basic functions of modifying the stressor and regulating emotions. During instrumental coping, actual behaviour is aimed at changing the person's relationship with the environment, and aggression, escape and preparation against harm all fit into this category. One form of avoidance is inactivity, and in the long-term response to the chronic experience of stress, this may be related to depression and feelings of hopelessness. In terms of feedback, inaction may also result from the apparent hopelessness of a situation (Lazarus, 1976).

Palliative coping, the second process, involves accommodating to (rather than manipulating) the stressful situation by the person's changing his or her internal environment in order to reduce emotional distress and its psychophysiological effects. Lazarus (1976) categorises these strategies into symptom-directed modes and

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