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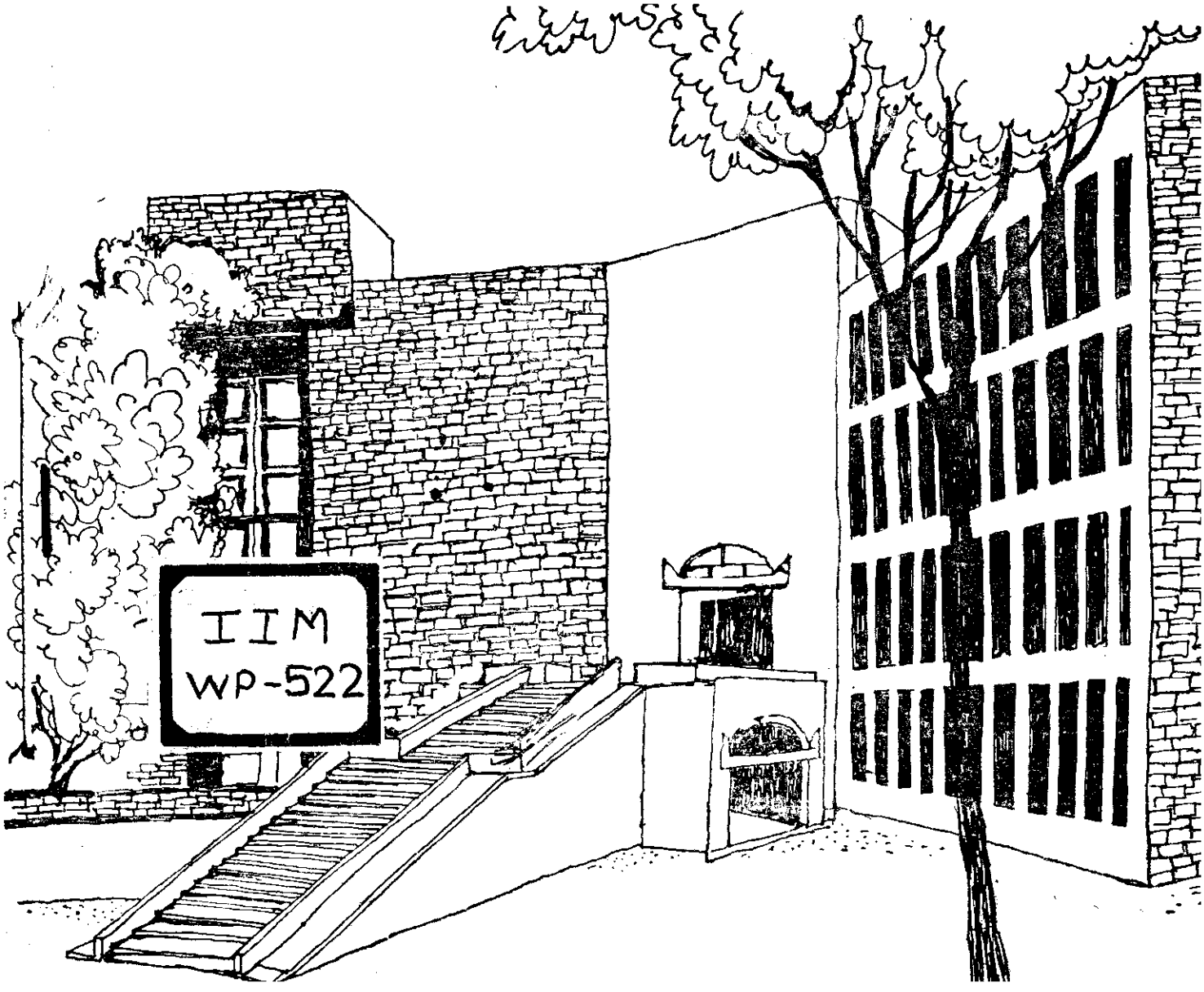

STRESS RESEARCH:
An Indian Perspective

By

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STRESS RESEARCH - AN INDIAN PERSPECTIVE

The concept of stress was first introduced into the life sciences by Hans Selye in 1936. It is a concept borrowed from the natural sciences. During the 18th and 19th century, stress was equated with "force, pressure or strain" exerted upon a material object or person which resists these forces and attempts to maintain its original state. The use of the concept in this fashion encouraged physicists and engineers into adopting it to suit their ends. Thus, stress in engineering is known as "the ratio of the internal force brought into play when a substance is distorted to the area over which the force acts" (Hinkle, 1973). In common parlance, however, the terms 'stress' and 'strain' are used synonymously in a non scientific fashion. The popularity of the stress concept has dwindled in the physiological field, where it first started and the use of stress terminology continues to flourish in the psychological and social fields, and during the past 15 years the term 'stress' has come into wide use in relation to work organisations (Agarwala, Malhan and Singh, 1979). Mason (1975) reviewed literature on stress and came to the conclusion that there was a lack of agreement over its definition and there was much confusion. The term stress has been used variously to refer to (1) stimulus (external force acting on the organism), (2) response (changes in physiological functions), (3) interaction (interaction between an external force and the resistance opposed to it, as in biology), and (4) more comprehensive combinations of the above factors.

Agarwala, Malhan and Singh believe that the confusions in definitions exist because the same term is used differently by scholars of different disciplines. Thus in physics, stress is a force which acts on a body to

produce strain. In physiology, the various changes in the physiological functions in response to evocative agents denote stress (rather than strain). In psychology, stress refers to a state of the organism resulting from some interaction with the environment. In psycho-physiology, stress is "that stimulus which imposes detectable strain that cannot be easily accommodated by the body and so presents as impaired health or behaviour." One way of unravelling this confusion is to identify:

1. The context in which the term is used. For example, stress when used in psychological contexts is not necessarily equivalent to systemic stress. Psychological stress is generally a broader term including systemic stress but also the conditions preceding systemic involvement (Cofer and Appley, 1964).

2. The discipline of the researcher and the nature of stimuli considered as stressors. For instance, physical and humoral stimuli are primarily studied in physiology and psychobiology (systemic stress) and psychosocial stimuli in psychology (psychological stress).

3. The response relevant to the scientist:
   Physiologists are primarily concerned with physiological changes; psycho-physiologists with health and behaviour and psychologists with deviations at the psychological (e.g., anxiety, depression) and behavioural (withdrawal) levels Organisation researchers focus on work-related psychological and behavioural symptoms.

Asthana is of the opinion that though the concept of stress has been tackled quite thoroughly by all these disciplines there is a sad neglect of a phenomenological analysis of the concept, but which appears crucial

to an understanding of the stress phenomena. In phenomenological psychology, man is considered as existing. All experiences are relations of existing human beings and the world. Consciousness is always being aware of something else. Our consciousness of the existing situation means we are physically responding to it and sometimes this response is the feeling of stress - an intentional act and not a causal reaction in a physiological sense. Feelings are affirmations of our attitudes towards situations and the experience of stress is one such affirmation. Stress is experienced as a restrictuion of our existence. Asthana also feels that there is an over dependence on using the language of physioo for describing psychological phenomena, he prefers psychological terms to be used to describe experience.

Indian society is facing rapid social changes such as break up of the joint family system and caste system, urbanisation, and rapid industralisation. These social changes have brought in their wake a number of stresses for the community at large. In this connection Sampurna and Ansari (1979) attempted to study the role of social factors in certain stress disorders - hypertension, peptic ulcers, thyrotoxicosis, bronchial asthama, anxiety neurosis etc. The social parameters used were family type, marital status, education, economic status and urban/rural population. The results obtained prove conclusively that the joint family system gives rise to more stress disorders than intermediate and nuclear family. Moreover incidence of such disorders was greater in higher educational categories and more hypersensitives came from the urban population.

In another study Nathawat and Tiwari studied the psychological determinants of stress disorders. They did this by administering four scales.

1. Eysenck personality inventory.
2. Fould's five punitive scales.

3. Beck's Hopelessness Scale and

4. Mooney Problem Check List. These scales were administered to 30 patients who suffered from stress disorders like migrane, hypertension, peptic ulcers and 30 patients who were to undergo surgery. Results revealed a consistent tendency for stress disorders to display a greater degree of neuroticism, criticism of others, intrapunitiveness, hopelessness and various problems of adjustment as compared to the surgical counterparts.

In a recent article, Ramachandra Rao (1983) very succinctly spoke about the origin of stress in Indian thought. Tracing it back to the samkhya and yoga systems, he points out that there are two sanskrit words Klesa and duhkha which approximate stress. The word klesa has its origin in the root khis which means to 'torment', 'cause pain' or 'to afflict'. The klesas are not mental processes but are a set of 'hindering load' on our mental process, they produce agitations which act as restrictions or hinderences. The samkhya - yoga explains that the fundamental non-cognition which leads to phenomenological stress is avidya. This avidya leads to asmita (self-appraisal), raga (object appraisal), dvesha (threat appraisal) and abhinivesa (coping orientation). These three appraisals, namely, those concerning the self, object and the threat are used for reality testing. Faulty evaluations in either or all of these can cause stress and torment. The samkhya system postulates that the feeling of dukh or stress is experienced by the individual in the course of his interaction with the world around him. There are three types of stresses which samkhya speaks of: personal (adhyatmik) situational (adhibhoutik) and environmental (adhidavivik). The personal stresses can again be of two

types, namely, physiological and psychological (or mental). The physiological stresses are born out of imbalances between the three fundamental physiologic constituents, namely vata, pitta and kaph. The psychological stresses are caused by emotional states of lust, hatred, greed, fear, jealousy and depression. The situational stresses are usually caused by 'unwholesome interpersonal transactions' which might include conflicts, competitiveness, agression etc. The third type of stresses namely the environmental stresses are occasioned by natural calamities, extremes of temperatures, storms etc. The abhinivesa indicates the commencement of coping behaviours by arranging the behaviours in a proper response sequence. Looking back at the concepts of asmita, raga and dvisha we find that they clearly indicate the 'increasing relevance of transactional cognitive processes to life-situations' and also the increasing role of 'energy-dynamics'. When we look at self-appraisal we find that the situation is purely cognitive, looking at object-appraisal we find that intentionality is mainly cognitive with less energy mobilisation. However in threat appraisal the condition of alarm is characterised by cognitive processes combining energy mobilisation. It also involves emotions and others organic changes. The abhinivesa is supposedly non-specific just as the fundamental klesa, the avidya is non-specific. The term avidya which literally means non-cognition is opposite of correct self appraisal and the encounters between the self and the object. The klesa as stresses has been defined to operate at four different modes. The first is prasupta or dormant. Given the right type of conditions any mental process can become a stressor. The analogy is given of a seed which can flower into a tree provided the facilitating conditions are present. The second is tanu or

tenuous denoting comparatively weak stressors which are held in check by more powerful stressors. They are present but without sufficient intensity and urgency. The third stressors are vichchinna or intercepted; these lack continuity due to conflict with competing responses. Their demand character is high but they alternate between the levels of 'high operation' to 'dormant.' Naturally, they surrender their stressor value when in dormant stage. The fourth mode is udara or operative stressors. These are potent stress responses which have found full expression in clearly observable behavioural modes. They have overcome the weaknesses of the first three modes.

The above given model proposed in the 'Yoga-Sutra' is a comprehensive one incorporating cognitive structuring, affective or emotional stages and adaptive reactions. It also presents the concept of 'Kriya-Yoga' which is aimed at reducing the 'number and intensity of the stressors' and to facilitate related conservation of mental energy devoid of tension which is designated as simadhi-bhavana.

In the Indian thought, it is now apparent, that due attention has been paid to the problem of stress. The system is analytical and helps an individual understand his own stresses and specially the roots of these stresses. There are subtle variations in the intensity with which different stressors operate and it is not unlikely that the powerful stressors become less so or even dominant after a period of time whereas the less powerful ones may vanish or return with greater vigour. Evans, Palsane and D'Souza believe that research on stressful life events in India is extremely limited and confined to clinical case studies. Their review of Indian studies encompasses the studies of Rao and Nammalvar (1976), Satija, Nathawal and Shah (1982),

Singh, Kaur and Kaur (1981), and finally Wig, Menon and Chawla. Some interesting findings of these studies have been pointed out. Rao and Nammalvar (1976) used a life events schedule developed in Australia and found that depressed patients experienced the same number of life events as controls, but the mean distress score for events was higher among the depressives. They also found contrary to western studies that death of a spouse seemed no more potent than death of a parent. This similar impact of the death of spouse and death of parent perhaps reflects the joint family arrangement prevalent in Indian societies.

More recently Satija, Nathawal and Shah (1982) also studied life events in depression and found that psychiatric patients who were more severely depressed had significantly greater life events score during the six months preceding the onset of depression. Evans, et. al. however recommend caution when drawing conclusions from these two studies since they are both retrospective, use scales of uncertain validity in the Indian culture and have small subject samples.

In another life events study Wig, Menon and Chawla (1982) measured the impact of life events on short term prognosis of schizophrenia. Of particular interest is the authors' use of a prospective design and their finding that schezophrenics with more life events during a six months period had slower recovery. The authors conclude after this brief overview of life events research in India that most of the studies are replications of research completed in the United States and use retrospective designs and instruments largely drawn from the U.S. which unfortunately limits the potential importance of the work. The findings of Rao and Nammalvar (1976) and Singh et. al. (1981) suggests that different family values may influence

perception of certain life events (e.f., death of parent) and explain some gender differences (e.g., females more upset by family conflict).

The authors suggest that in future life stress research in India should focus on the common irritations, fruetrations distressing demands of everyday life rather than on the less frequent stressful life events. Migration from rural to urban areas may be a potent source of stress, and the study of daily hassles in the two settings may yield a measure of the stressfulness of each. One can and should also investigate to what extent daily sources of stress are mediated by the joint family system in India. Joint and nuclear families have implications for many important variables related to power in families, division of labour, interpersonal relationships, child rearing, status and roles, resource production and consumption and all forms of social emotional security. The fact remains that it is the human organism which is at the centre of all understanding about stress.

Life Events Stress Scale:

Much research has been devoted to finding the relationship between stressful life events and the onset of various illnesses and diseases Many studies have found a positive relationship between stressful life events and subsequent illness (Shmale and Engel, 1967; Holmes and Rahe, 1967; Grant et. al. 1974).

Most of the investigators in India have made use of the social Reasjustment Rating Scale (SRRS) developed by Holmes and Rahe (1967). This scale is composed of 43 life events drawn from nearly 5000 case histories of patients (prior to the admission to hospital with

tuberculosis). By this scale it is possible to arrive at a global index of life stress in terms of 'Life Change Unit' (LCU). From the life events constructed in SRRS the authors have also constructed a 'Schedule of Recent Experience' (SRE) which allows the respondent to document for specified periods, the frequency of occurence of the various life events scales have been developed since then. Singh, Kaur and Kaur point out some serious methodological issues which have been raised by various workers regarding the validity and reliability of these scales. The content validity of the items included in the Holmes and Rahe scale was questioned by Hodgens (1974). He pointed out that twenty-nine out of the forty-three items in the scale were often the symptoms of illness rather than their cause. Holmes and Hasuda (1974) have reported that young adults between twenty to thirty years of age report twice as many stressful events on these scales as compared to older subjects whereas the Midtown Manhattan study had clearly shown that stressful events accumulate with age, suggesting that these scales have an excess of items related to young adult life. An important point is that many of the items listed may be quite irrelevant to the population being studied especially when applied to a different culture for example dating practice is practically non-existent in Eastern culture as conflicts over dowry are non existent in Western culture.

Such studies have to grapple with the problem of retrospective contamination when trying to correlate the relationship between stressful events experienced in the past with a subsequent illness episode. Also the effect of a number of intervening variables like age, sex, socio-economic status, family and social support systems have not been paid adequate attention to.

In view of all these methodological difficulties attempts have been made by Indian researchers to construct a life events scale which is more suited to the culture of the Indian people. One such study is by S. Dube who after reviewing life events of the Holmes and Rahe Scale and Paykel et. al. made a list of 52 events keeping in mind the prevalent socio-cultural stresses which are brought about by the joint family, dowry system etc. He did not use items which had no significance for the Indian population like dating. Also in answering the questionnaire he departed from the structure of making the respondent score each event for the readjustment required on a continuous scale around are event fixed as an index point of 50 score (Holmes and Rahe's Scale) or rating on a 20 points scale (Paykel et. al.). Instead, respondents were asked to rate each item in terms of the readjustment required on a three point rating scale of 'yes', 'no', and 'doubtful' and also indicate in percentage terms whether they agreed 100 or 50% or disagreed 100 or 50%.

The respondents were 110 normal people from Delhi and the ranking of stressful life events which emerged is shown in the table below

Table Here

Some points worth mentioning are firstly the events which threaten the basic biological needs have been ranked higher than events which create socio cultural conflict. Secondly, statistically significant mean differences were found for males and females on socio-cultural factors such as decrease in income, retirement, partition of joint family etc. The author attributes these differences to the role obligations of the female in Indian

society which makes her perceive events like birth of a grand child differently than for a males ($p < 0.05$). Thirdly both desirable and undesirable events require readjustment.

The author concludes that life events research involves an unusually large number of methodological issues because of measuring subtle psychological variables. The reliability of the research gets complicated because of the subjective nature of the discomfort changing over time once the stress is over or conquered. The reliability and validity is to a large extent dependent on the cooperation from subjects.

Another study which attempted to construct a stressful life event scale on the Indian population was one conducted by Singh, Kaur and Kaur. The sample size was 200 subjects, both male and female who had never sought psychiatric help and had not been suffering from any major disease six monthes prior to their inclusion in the study on a subject. The social Readjustment Rating Scale was used along with an open ended question asked after the administration of the questionnaire where respondents were asked to note down any other stressful event they had experienced and which was not listed in the SRRS. Thus, a new scale consisting of fifty-one life events was obtained consisting of life events commonly experienced by normal Indian adult population. The rankings of the stressful events are depicted in the table below:

Table Here

Other factors which emerged from the analysis of the questionnaire was that an average individual experiences on an average ten common stressful events in a life time without suffering any obvious adverse physical or

or psychological disturbance. The mean number of stressful life events experienced over a period of one year without producing overt physical or mental illness is approximately two. There were no significant differences for males and females, young adults or older age group or for married or single subjects. There were however significant differences between male and female for three items i.e., death of family member ($p<0.05$), family conflict ($p<0.01$), gain of new family member ($p<0.01$) all of which were felt more stressful by women than men. Since these items relate to inter-family events, it may be due to the fact that in India a majority of women are still closely bound to family with few outside professional and social interests.

Some events were more commonly experienced by the general population e.g., death of close family member, getting engaged or married, pregnancy of wife, illness of family member etc. as compared to death of spouse, divorce, wife begins or stops working and outstanding personal achievement which are experienced by fewer number of subjects in the population.

Ten items in the scale could not be classified either as desirable or undesirable e.g., son or daughter leaving home, change in working conditions, retirement, prophecy of astrologer etc. and so have been classified as ambiguous. Authors also found that stress experienced on undesirable items is significantly greater ($p<0.01$) than those experienced on desirable items and this may explain why more undesirable events (32) have been included in all existing scales. It has also been observed that the same event is perceived as desirable or undesirable by different individuals or by the same individual depending on social circumstances. e.g., 'pregnancy' has been perceived as both desirable (wanted pregnancy) and undesirable (unwanted pregnancy).

The findings also suggest that subjects with a high, N-Score report greater amount of subjective stress suggesting that neurotic patients would be likely to report higher number of experienced life events as well as signigicantly higher stress scores for the same stress event than the normals.

Finally, taking into account problems of retrospective contamination and difficulty in recalling remote stress events, two time scales were constructed: (a) life time (b) past one year. Dr. Sam Batlivala, a consultant Physician, administered the Holmes and Rahe life events scale to a mixed group of 330 senior executives inorder to ascertain the typical role stresses faced by the Indian executive. Presented with the scale of 53 events the executives had to tick off the stressful events that they were faced with during the last 12 months. The scale measures the severity of adjustment a stress brings about on a scale of 0 to 100. 150 or lower points denotes a 33% chance of serious health change, over 300 points denotes a 50-90% chance of an illness. In this group 70 executives had a score of more than 300 units which means that 21.2% of them have a 80-90% chance of a serious illness, 36.3% had a 50% chance of a serious change in health and 42.4% had a 33% chance of a serious health change.

The most common event producing stress for the group was, 'pressure to work harder. The next common stressful event found was Divali/Pongal/ Onam/Christmas i.e., major festivals. The commonly felt stressor was 'change in health of family member', and 'change in responsibilities at work' arguing with spouse was the next commonly experienced stressor.

Interestingly, 'vacation' was also experienced as a stressful event. The remaining role stresses experienced by the executives in order of priority are listed below:

1) Loudspeakers in the neighbourhood blearing loudly, change in social activities.
2) Wife constantly comparing with neighbours.
3) Son or daughter fairing poorly in school/college.
4) Change in sleeping habits.
5) Change in family reunions/get togethers.
6) Death of close family member.
7) Business readjustment.
8) New positions.
9) Mergers.
10) Change in financial state.
11) Change to different line of work.
12) Trouble with in-laws.
13) Change in residence.
14) Traffic noise.
15) Change in eating habits.
16) Outstanding personal achievement.
17) Change in living conditions.
18) Change in recreation.
19) Personal injury or illness.
20) Revision of personal habits.
21) Change in work hours or conditions.
22) Arranging admission to school for children.

23) Marriage.

24) Retirement.

25) Trouble with boss.

26) Arranging dowry for daughter.

27) Pregnency.

28) Sex difficulties.

29) Transfer to another state.

30) Mortage over Rs. 10,000.

31) Son or daughter leaving home.

32) Trouble with principal/teacher.

33) Change in religious activities.

34) Mortgage or loan less than Rs. 10,000

35) Death of spouse.

36) Divorce.

37) Marital reconciliation.

38) Gain of new family member.

39) Foreclosure of mortgage or loan.

40) Wife begins or stops work.

41) Begin or end school.

42) Change in schools.

43) Minor violations of the law.

Executive Glow Up and Burn Out:

Dr. Udai Pareek coined the terms, 'glow up' and 'burn out' to refer to two consequences of stress. He drew the analogy with a burning light which when excess energy is applied to it results in a burn out, particularly if the energy is limited and there is no safety device like a fuse.

He defines burn out,as '... the end result of stress experienced, but not properly coped by the executive, resulting in symptoms of exhaustion, irritation, ineffectiveness, inaction, discounting self and others, and problems of health (hypertension, ulcers, heart problems/ailments) and drug use.' The glow up of the executive occurs when stress is properly channeled and the feeling is one of challenge, high job satisfaction, creativity, effectiveness, better adjustment to work and life etc.

In his research into role stress among managers he came across 10 types of role stress.

1. Self-Role Distance: Conflict of one's values and self concepts with the requirements of the organisational role.
2. Inter-Role Distance: Conflict between the organisational role and other roles. e.g., an executive not being able to share his time between work demands and family demands.
3. Role Isolation: Lack of linkages of one's role with other roles in the organisation.
4. Role Ambiguity: Lack of clarity about expectations of others from the role, or lack of feedback on how performance is regarded by others.
5. Role Expectations Conflict: Conflicting demands made on the role by different persons in the organisation.
6. Resource Inadequacy: Non availability of resources needed for effective role performance.
7. Personal Inadequacy: Lack of knowledge, skills or adequate preparation to be effective in a particular role:

8. Role Stagnation: Few opportunities for learning and growth in the role.

9. Role Erosion: A feeling that some important functions a role occupant would like to perform have been given to some other roles, or a feeling that there is not much challenge in the functions given to the role.

10. Role Overload: A feeling that too much is expected from the role than what the occupant can cope with.

The surveys conducted by Pareek have shown that top and senior managers experience the following role stress in this order: role isolation, self role distance, role erosion and inter role distance. for the middle managers, role stagnation was more evident than inter role distance.

Nine factors have been delinated which contribute either to glow up or burn out.

1. Level of Stress: An optimum level of stress is necessary for executive glow up. The stress should not be too little (hypostress) or too much (hyperstress).

2. Type of Stress: Stress can be functional, contributing to glow up or dysfunctional contributing to burn out. The first is called 'eustress' and is the stress of achievement and 'distress' which is the stress of disappointment.

3. Personality: Personality dimensions which lead to executive burn out are external locus of control, low inter personal trust, low self, low inter personal trust, low self esteem, rigidity and suspiciousness, withdrawal, alienation and machiavellism.

4. Nature of the Job or the Role: A highly routinised job can lead to burn out.

5. Nonwork Life: The executive's social or economic conditions, family life and relationships, family and other obligations, health etc. also contribute for his glow up or burn out.

6. Life Style: A stress dissipating life style leads to glow up. On the other hand a stress absorbing life style leads to burn out.

7. Role Style: This dimension was found to make the most significant contribution to role stress. Role styles were broadly classified into approach and avoidance. In the approach style, the executive acts out of hope of success, influence, acceptence and growth. Avoidence style is indicated by an executive acting out of fear failure, helplessness or inadequacy.

8. Coping Styles: Dysfunctional coping styles are characterised by fatalism, blaming and showing aggression towards oneself or others. Functional styles are persistent in nature and characterised by the hope for the solution of a problem.

9. Organisational Climate: Organisational climate perceived as developing excellence in people was significantly associated with low role stress and one characterised by strong control over people with high stress.

Sagar Sharma after reviewing some Western studies on the concept, correlates and moderators of well-being, and organisational stress came to the conclusion that culture emerges on important factor in the study of psychological well-being and organisational stress and also in the study of mediators of orgahisational stress - psychological well-being connection. He found the findings based on western samples not only inconclusive but also restrictive. He questions their generalisability across cultures since the research is traceable to the specific currents of western thought. A systematic cross cultural investigation is called for to identify cultures in which people seem to behave out of line with the predictions based on theoretical models developed in the West. Further, such a research can also highlight various conceptual and methodological issues that need to be considered in the study of 'well-being' and 'organisational stress' in the third world, which encompasses a majority of the world's nations and houses a majority of its people. Such studies when done on a comparative and repetitive cross-national or cross-cultural basis, have enormous potential for providing information about changing levels of social and economic development and about the processes and conditions that lead to or are associated with the 'good' life. He believes that future cross-cultural research should address itself to the following questions:

1. What are the meanings, levels and internal structure of different facets of psychological well-being in different cultures?
2. How are personality measures like locus of control, extraversion, neuroticism, job involvement and the measure of perceived organisational support related to different facets of psychological well-being in different cultures? How are these personality traits,

related to different facets of organisational stress in different cultures? How do these personality traits mediate the organisational stress-psychological well-being connection? Is the pattern same in different cultures?

Modifiers of Stress:

In a comprehensive review of the recent developments in the areas of medicine and mental health problems, Mishra and Bhattacharya (Utkal University) advocate a psychological model of illness and mental health. In America, it is being increasingly realised that almost 30% of the health problems constitute some psychological elements. Therapists in America also believe that four forms of therapy are becoming effective, and widely used: assertiveness training, sex therapy, biofeedback and meditation. The belief that disease and psychosocial behaviour are two independent phenomena is increasingly being eroded and a time has come when one has to recognise the necessity of examining the interrelationships between social, psychological and physiological determinants of disease and illness. As an example one can cite the cancer patient. Recent research data suggest that a cancer patient's psychological reactions can influence his or her physical well-being and ultimate prognosis (Cobb, 1976; Weisman and Worden, 1975). Cancer patients appear to experience considerable difficulties in their interpersonal relationships and there appears to be a positive relationship between the quality of a patient's interpersonal relationships and his/her ability to cope with the illness. Individuals who are able to maintain close interpersonal relationship with family and friends despite their illness were seen to be more likely to cope effectively with the disease than individuals who are not able to maintain such relationships. Clinical experience with cancer patients supports such data.

Social Support and Stress:

There has been a growing concern among psychologists, clinical psychologists, psychiatrists and social researchers in analysing the problem of social support systems. The concept of social support has several dimensions. Social support can mean purely emotional support such as understanding from other people or it can also include tangible services such as financial help. Mishra and Bhattacharya state that there is little agreement about the definition of social support nor is there consensus about the utility of distinguishing among services of support. They believe that none of the existing definitions provide a complete meaning of social support. One of the most comprehensive definitions is one provided by Robert Caplan (1979). He specifies two dimensions namely objective-subjective and tangible-psychological. These form four variations of social support. Objective-tangible support is behaviour directed towards providing the person with tangible resources that are hypothesised to benefit his or her mental or physical well-being objective-psychological support is behaviour directed toward providing the person with cognitions (values, attitudes, beliefs and perceptions) and toward inducing affective states that are hypothesised to promote well-being. Objective support, both tangible and psychological is measured by an outside observer. Subjective-tangible support and subjective psychological support are analogous to their objective counterparts, but they are determined by the target person's perception that supportive conditions exist. Caplan's distinction between objective and subjective social support is important. Social support can be measured from the frame of reference of the target person (the subjective or

phenomenological approach) or from the perspective of an outside observer (the objective approach). Objective assessment is not prone to the self reporting biases inherent in the phenomenological approach and it provides a standard of comparison across individuals. But the value of the phenomenological approach lies in the fact that individuals have different needs and the nature of their interpersonal contacts may vary greatly and these differences may not be adequately reflected in measures of objective social health constructs.

There has been a number of empirical studies of social support in the area of mental health and illness. One such study was conducted by Tripathi, Caplan and Naidu who studied the stress that results from doing poorly in the annual university exams. The subjects were 203 undergraduate students of the University of Allahabad. Data were gathered by a self administered questionnaire. The questionnaire sought to measure the following:

(a) Objective Fit: To measure this, respondents were asked to report the marks they achieved in the most difficult subject of their last examination as well as total marks in all other subjects. These marks were then compared with the actual examination marks.

(b) Internal-External Control: Items were referred to control - whether internal or external, with regard to performance on academic examinations. Items of the internal control index refer to the role of drive, intelligence, and persistence as the cause of grades. The external index contains items referring to the causes of chance and powerful others (Fate and god, grace).

(c) Coping and Defense: Respondents were asked what they did after they learned of their poor grades or what they would do if they were to get poor grades. Measure of coping was the mean score of respondents on the four coping - like indices and measure of defense was the mean score of the five defense-like indices.

(d) Negative Self Esteem and Sense of Mastery: These were two item index which measured negative self evaluation and positive self evaluation respectively.

(e) Strain Indicators: These were measures based on (i) somatic complaints; and
(ii) negative affects which referred to personality states such as depression, anger, anxiety etc.

(f) Well-being Indicators: These were measures of positive affective outcomes which referred to feelings of happiness, academic satisfaction and extra curricular satisfaction. Social support was conceptualised in terms of the perception of the respondents to what their parents actually did for them. These were divided into tangible supports like buying books and emotional supports like providing encouragement.

Results indicated a positive correlation between the perceived amount of parental support and acceptence of parental social support An interesting finding was that parental social support in interaction with social support acceptance did not alleviate strain due to poor performance in examination but it exacerbated it more. An explanation that the authors offer is the vested interests that parents have in the

examination results of their children and therefore may also feel themselves to be as much a victim of the event as the student. A person who feels victimised is unlikely to be a good source of support. This does not mean that parental support will exacerbate other types of stresses too. It is quite possible that parental social support would actually buffer the effects of other types of stress e.g., due to illness, which are not so threatening to parents themselves. It is also important to make a distinction as to whether one accepts social support because one needs it and desires it or because of role obligation. Acceptance of parental support when one does not want it is likely to have negative consequences.

Social support also had a negative buffering effect for somatic anxiety and depression - this could be because the individual feels that he/she has 'let them down' due to her/his poor examination performance.

The research study cited above is part of a collaborative study conducted by the Institute of Social Research, University of Michigan and the University of Allahabad. Another area of stress research persued under this collaboration programme is finding the relative contribution to well-being of thoughts about past, present and anticipated stressors of poor fit (Caplan, Tripathi and Naidu). Two hundred and seven university students preparing for annual academic examinations completed self administered questionnaires measuring parameters of the hypotheses. The propositions made were (i) that all time perspectives are not equally salient but each may make unique

contributions to well-being/ill-being; (ii) that the components of stressful events that affect emotion and somatic symptoms may be different for past, present and anticipated future events. Stress is defined by the authors as the lack of fit between the characteristics of the person (P) and of the environment (E). This conceptualisation is based on the theory of French, Rodgers and Cogg (1974). Three forms of subjective fit are used in the hypotheses (subjective fit refers to perceptions by the person): retrospected fit which refers to the person's recollections of fit at some past time. Current fit referring to the persons report about the present and thirdly anticipated fit referring to some particular time in the future. A distinction is also made between cognitively perceived fit and motivational fit. The first refers to the degree to which respondent perceived good PE fit between their cognitive abilities (e.g., memory and logic) and the demands made by the examination. The latter refers to how much the person is able to devote to academic studies and how much the person is able to work hard in preparation for the examination. Two sets of multivariate analyses were performed - one of motivational versus cognitive fit within time frames and one of time frames within motivational and cognitive fit. These analyses suggest that (a) cognitive misfit is a greater predictor of strain than motivational misfit, and (b) motivational misfit has its greatest effect on increasing strain in the future time perspective whereas cognitive fit has its greatest incremental effect on strain in current and past time perspectives.

In this study, past, present and anticipated misfit were positively related to one another. One reason given for this is that studies have shown that people have great difficulty in recalling events beyond six

months and events in the future too. Such uncertainty provides a potential opportunity for persons to project current perceptions of misfit into the past and into the future time frame producing intercorrelations among all three time frames.

Most studies suggest (Lazarus, 1966; Kasl and Cobb, 1979, Guer 1970, Morrison, 1971) that anticipation of a event can be as strain producing or more strain producing than confrontation with an event. On the contrary, results of this study showed that retrospected and current stressors rather than anticipated stressors were most likely to predict strain or well-being. A theory that was partially tested by this study was the tendency of people to view the past as more uncontrollable and the future as more controllable. The authors fitted this data with the hypothesis of the present study in the following fashion. Assuming that cognitive fit is inherently and subjectively more stable and uncontrollable than motivational fit because it deals with traits such as memory and other aspects of intelligence. Further assuming that motivational fit is inherently and subjectively less stable than cognitive fit and more controllable than cognitive fit because it deals with effort which varies at minimum according to the person's perception value of each goal towards which effort can be directed. Then cognitive fit should predict strain and well-being best in the past time frame whereas motivational misfit should predict strain and well-being best in the future time frame. The data do provide partial support for these assumptions.

A cognitive interpretation of stress was first espoused by Lazarus (1966) who believed that threat is the central intervening variable in psychological stress. Threat occurs when a situation is seen as possessing

more harm producing potential than the counterharm resources at the disposal of the individuals. Sinha and Naidu studied metaphysical beliefs and perception of threat in death related stimuli among one hundred and twenty school students. The study employed a pictorial test for measurement of perceived threat and four scales for measurement of metaphysical beliefs. The results of the study indicated that beliefs in the existence of God, positive nature of God and life after death showed positive significant relationships with the total threat score and also with separate indices of threat viz; fear, grief and evil thus contradicting the authors assumptions that those beliefs which assure continued and comfortable existence to the subject would reduce the perceived degree of threat. One possible explanation that the authors offer has to do with the motivation underlying the development of an individual system of beliefs. It is probable that an individual who is beset with fear and anxiety may espouse these cosmological beliefs as an anxiety reducing defense mechanism and hence the positive correlations obtained in this study should be expected. If beliefs had really exercised the inoculating function, the anxieties should have been reduced and the strong positive correlations should not have been observed. These correlations also will not be observed when people build a system of beliefs for reasons other than combating anxieties about death, like putting their life expectancies together into a meaningful whole.

The relationship between impulse control and stress was studied by Srivastava and Naidu. The concept of impulse control has a long history in personality and clinical psychology. This concern is reflected in concepts like 'will power', 'ego strength' and in their psychological

opposites like hopelessness and helplessness. The authors in the present study conceptualised impulse control as including those processes which are involved in the control of negative and positive affect states, voluntary delay of gratification of physical and psychological needs and pain tolerance. The sample size was 114 undergraduate students of Allahabad University who were given the following instruments - Impulse Control Scale, Health Questionnaire, Adjustment Inventory, and Stress Tolerence Scale. Results show a significant relationship between total impulse control and health score ($r = -.45$, p 0.01). The correlation coefficients between all indices of impulse control and adjustment and stress tolerence also reached the .01 significant level. So as the impulse control level increases, there is more stress tolerence possessed by the subject. The authors expected impulse control to bear a U curve relationship with the dependent variables (health, adjustment stress tolerence belief, stress tolerence behavioural and total stress tolerence). However, this did not happen. One of the reasons that the authors put forward is that the range of the scale was limited and it did not reach those values of impulse control which could have been associated with impaired health.

The subsequent section concerns with the role stresses experienced by different proessional groups.

Role Stress Among Different Professional Groups:

Jagdish (1983) investigated into the relationship of occupational stress with job satisfaction and mental health of first level supervisors After reviewing studies of occupational role stress he felt that very little work has been done to examine the effect of occupational stress on the positive aspects of mental health. He also found very few studies in the Indian context that examined the relationship between role stress and job satisfaction. Besides, in most of the studies conducted abroad, job satisfaction was taken to be an absolute on-the-job phenomenon while it should include off-the-job variables also. He sought to examine the moderating effects of job satisfaction and mental health on role stress. First level supervisors were chosen as the sample in this study. These supervisors face the maximum stress being 'the man in the middle' - on the one side representing the management to workers and on the other side linking the workers to management.

Three psychometric devices were administered to 400 first level technical supervisors. The devices used were - the Occupational Stress Index, the S-D Employees' Inventory and Mental Health Inventory. The Occupational Stress Index was used to assess the perceived occupational stress. The inventory was standardized by Srivastava and Singh (1981) and includes items relating to 12 dimensions of job life viz., Role Overload, Role Ambiguity, Role Conflict, Group and Political Pressures, Responsibility for Persons, Under Participation, Powerlessness, Poor Peer Relations, Intrinsic Impoverishment, Low Status, Strenuous Working Conditions and Unprofitability.

S-D Employee's Inventory: The Satisfaction-Dissatisfaction (S-D) Employee's Inventory developed by Pestonjee (1973) was employed to assess the level of job satisfaction of the subjects. The inventory comprises of 80 items relating to four areas, namely, Job, Management Social Relations and Personal Adjustment. Job and Management areas constitute 'on-the-job' dimension while Personal Adjustment and Social Relations together constitute 'off-the-job' dimension.

Mental Health Inventory: Since most of the psychometric devices available to assess mental health tend to measure the negative aspects of mental health a measure of positive aspects of mental health was developed and standardised. The items in the inventory covered the following six dimensions of mental health - positive self evaluation, perception of reality, integration of personality, autonomy, group oriented attitudes, and environmental mastery.

The statistical analysis of the obtained data revealed the following facts regarding the relationship between occupational stress and mental health and job satisfaction.

Occupational stress arising from role overload, role ambiguity, role conflict, group and political pressures, responsibility for persons, under-participation, powerlessness, poor peer relations, intrinsic impoverishment, low status, strenuous working conditions and unprofitability significantly impair supervisions job satisfaction, overall as well as area wise.

Occupational stress arising from various afore mentioned job dimensions, excepting 'responsibility for persons' inversely associate with mental health of the focal employees.

Occupational stress has more inverse relationship with 'on-the-job' dimensions of satisfaction than with its 'off-the-job' dimensions.

A supervisors job satisfaction significantly (positively) correlates with the mental health scores and that the relationship of occupational stress with job satisfaction and mental health continously increases with accumulation of occupational stress variables one by one, stepwise.

It was also found out that employees job satisfaction significantly moderated the occupational stress-mental health relationship. Employees' mental health significantly moderates the relationship of occupational stress and job satisfaction.

Some suggestions that the author offers in the light of these findings are - employees job roles should be well defined so that there is no stress arising out of ambiguity or uncertainty. Management should try to keep supervisors and lower level management free from political presoures and to make efforts in order to improve interpersonal relationships at work.

Employees should be given opportunity for participation and responsibility in order to develop positive attitudes and job involvement among the employees. By reducing stress, management can promote job satisfaction and mental health and by improving job satisfaction and mental health, can lesser the adverse effects of occupational stress.

The study indicates that mental health and job satisfaction moderate the adverse effects of occupational stress on the focal employee's job attitude and adjustment and psychological well-being in general. The

investigation concludes that although occupational stress is more situation oriented significant moderating effect of mental health on the occupational stress-strain relationship reveals that personality characteristics markedly influence the perception and effectiveness of occupational stressors. Kirtida Surti (1982) studied the psychological correlates of role stress in working women in various professions. The eight different professional groups consisted of researchers, doctors, nurses, social workers, school teachers, university and college teachers, gazetted officers and bank employees along with a group of forty women entreprenours. The sample comprises of 360 working women. An attempt was made to see to what extent demographic, personality and organisational factors were responsible for evoking various role stresses. She also tried to gain insights into their role efficacy and difference in using coping styles and the relationship between role efficacy and various kinds of role stresses experienced and the coping styles used to deal with these stresses by individuals in the work situation. Various questionnaires were administered to study the following variables -

1) Role Stress: Eight different role stresses experienced by working women were studied with the help of the instrument "Your Feelings About Your Role."

2) Coping Styles: A semi-projective technique developed by Pareek (1981) called Role PICS a short form of "Projective instrument for Coping Styles" was used to identify eight basic coping styles.

3) Role Efficacy: Developed by Pareek (1980) was used to measure role efficacy of an individual. The independant variables measured were demographic variables, personal, family, employment history, residence

and transportation. The personality variables were measured through Levenson's Locus of Control Inventory (1972), Contact Personality Factor Test developed by Cattell et al (1954) and fear of success was measured through a General Beliefs Survey and Value Preference scale which were specially developed for this study. To measure organisational variables Job Satisfaction index was used to measure job satisfaction. Organisational climate was measured with the help of Taylor and Bower's Organisational Climate questionnaire (1972) and Motivational Analysis of Organisations MAO (C) developed by Pareek (1979)

In this study, different types of role stresses experienced by professional women were measured by the instrument developed by Pareek (1981) known as 'Your Feelings About Your Role". The instrument measures the extent of role stresses experienced by an individual in an work situation on the following dimensions:

1) Self Role Distance (SR) - conflict between the self concept and the expectations from the role as perceived by the role occupant.

2) Inter-role Conflict (IR) - conflict among the various roles that an individual occupies.

3) Role Stagnation (RS) - Few opportunities for learning and growth in the role.

4) Role Erosion (RE) - A feeling that some important functions a role occupant would like to perform have been given to some other roles or a feeling that there is not much challenge in the functions given to the role.

5) Role Overload (RO) - A feeling that too much is expected from the role than what the occupant can cope with.

6) Role Isolation (RI) - Lack of linkages of one's role with other roles in the organisation.

7) Role Ambiguity (RA) - Lack of clarity about expectations of others from the role, or lack of feedback on performance is regarded by others.

8) Role Inadequacy (RIn) - Feelings of incompatibility between the expectations from own role, from that of significant others and self expectations.

An Entrepreneurial Role Stress Scale was also administered wherein the role stresses were related to the psychological needs of an entrepreneur. These needs are the need for achievement, need for power, need for extension and need for affiliation.

Analysis of scores revealed the typical stress experienced by a particular professional group and a rationale for this was sought. Self Role distance was experienced mostly by bankers and least by university and college teachers. Doctors experienced inter-role distance highest while gazetted officers, researchers, university and college teachers experience it to a very low extent. This could be because the doctors role is a very specialised one and while playing multiple roles they feel stressful due to various expectation from different role senders which they might be feeling difficult to fulfil. Role stagnation is experienced highest by nurses followed by bank employees and researchers.

This could be accounted by the routine jobs that both nurses and bank employees have to perform. Role overload is experienced in more or less the same intensity by all professional women except university and college teachers. Role isolation is experienced more by bank employees, nurses, doctors and gazetted officers. Nurses and bank employees experience role erosion to a higher extent than other groups. With increasing competition and large scale recruitment in both these professions, these women are likely to feel that their role is not so important. Role inadequecy stress is experienced most by nurses, bank employees and researchers. The table below indicates the mean, SD's and F-Ratio of the different scores. Total role stress is experienced most

Table Here

by nurses followed by bank employees. The author attributes this to the frequent interaction with people that is needed by these professions. University and college teachers experience least role stress. These jobs are considered socially prestigious, working hours are less, vacations are frequent and pay scales are reasonable. Due to these reasons they might be able to fulfil the demands of various roles and hence may not be facing more conflicts with existing multiple roles they are playing in society.

No signigicant differences were seen on any types of role stress with age, birth order, educational level, family related variables, promotion, length of service, experience in organisation, distance of work place, mode of conveyence.

A similar analysis was conducted for entrepreneurial work stress and it was found that role stress was experienced more by women entrepreneurs who are later borns, married, staying in nuclear families, having children within 4-10 years of age and these who have migrated from other states to Gujarat.

Using a semi projective technique (PICS) Projective Instrument for Coping Styles developed by Pareek, the profiles of coping styles adopted by professional women was drawn. It was found that all professional women use defensiveness style most to cope with stress and that dysfunctional and avoidence styles were used twice as often to cope with stress than functional or approach oriented styles women entrepreneurs used however the approach oriented style more than professional women.

An individual's effectiveness in a role will be high if she/he can get more opportunity to design her/his own role and integrate it with the expectations of others as well as with one self. This potential effectiveness of an individual occupying a particular role in an organisation has been termed as Role Efficacy by Pareek (1977) and is a function of centrality, integration, proactivity, creativity, inter role linkage, helping relationships, super ordination influence, personal growth and confrontation provided by the role. The more these dimensions are present in a role the higher the efficacy and lesser is the role stress.

Results indicate that gazetted officers and social workers have high role efficacy and researchers and bank employees have lowest role efficacy. Role efficacy is also seen to increase with age, income length of service and experience in the organisation. Role efficacy is also high in women who have received promotion, stay in nuclear families and have grown up children (11+).

P.C. Sen (1981) in his study investigated into the main role stresses experienced by employees in the banks at different levels and the coping strategies adopted by them. The main objectives of his study were -

1. To study the main role stresses experienced by employees in the banks at different levels.
2. To study coping strategies to deal with role stresses by employees at different levels in the banks.
3. To study differences in role stresses and coping strategies according to the banks, levels of management and various demographic variables.
4. To study personal correlates of role stress and coping styles.
5. To study organisational correlates of role stress and coping styles.

The study was conducted on a sample of employees at four levels from three Banks. The levels were, (a) top management (b) senior and middle management (c) junior management and (d) clearical staff, Questionnaires were administered to 600 employees, and responses from

446 employees were received. Information was collected about two aspects of their job experiences - whether they joined the bank as clerks or as direct officers, and what their previous job experience was, some demographic and background information was collected to test whether these had any signigicant relationship with stress and coping styles. The instruments used measuring these variables are given below -

a) Dependent Variables:

1. Role Stress (Your Feelings About Your Role).
2. Coping Styles (Role PICS, a semi projective instrument).

b) Independent Variables:

1. Locus of Control (LOC inventory).
2. Personality Dimensions (Attitude Survey by Cattell, King & Schuettler).
3. Alienation (Personal Opinion Survey)..
4. Machiavellianism (Mach Scale).
5. Tolerance of Ambiguity (general Opinion Survey).
6. Satisfaction and Opinism (Progessional Hopes and Goals).
7. Blocks to Creativity (BC Questionnaire).

Organisational:

8. Organisational Climate (Organisational Climate Questionnaire).
9. Organisational Climate (Motivational Climate Questionnaire).
10. Job Satisfaction (JS Scale).
11. Managerial Behaviour (MAO - B).
12. Role Satisfaction (MAO - R).
13. Role Efficacy (Role Efficacy Scale).

Using the instrument, 'Your Feelings About Your Role'(Pareek, 1980), S found very little differences between the scores in the three banks but he found interesting data about differences in role stresses at the organisational levels. Top level people had lower score on role stagnation whereas clerical staff show the highest score on this dimension. Sen interprets this by observing that people at the lowest level feel that they are stagnating both individually and role-wise. However, this feeling increases as people go up in the heirachy (Rank order of correlations in role stresses amongst four levels.

Table 3.5 Here

The dimension of inter role distance has a lower rank among clerical staff, whereas it has a fairly high rank amongst top managers. So, the higher one is in the organisational hierarchy the more conflict he experiences with other roles.

Role Stress and Background Factors: The background variables that Sen etudied in relation to role stress were age, sex, education, income, family type, marital status, residence, distance from residence to place of work, distance from place of domicile to place of work, entry and previous job experience. Some of the conclusions that Sen draws are that role stagnation decreases as people advance in age - in general age is negatively related with role stress. Women experience more role stress as compared with men. This seems to be primarily because, in Indian society, career oriented women are still few and far between. Role stress is inversely related with income - the higher the income, the

less is reported role stress. Sen infers that persons with higher incomes hold correspondingly higher assignments with better status, esteem and more scope for satisfaction of self actualisation needs. Unmarried persons experience more stress than married persons. This may be owing to their comparative lack of security need, resulting in higher self esteem, autonomy and self actualisation needs. Persons with urban background experience more stress. Upbringing in rural areas may produce an attitude of self contentment in contrast with the fast life and activities of an urban city. The difficulties of commuting for people living 20-50 kms. away from place of work produces more stress than it does for people who live closer to the place of work. Family size was found to be positively related with role stagnation and role isolation and negatively with role erosion. The former two may be attributed to advancing age, with growing family and more responsibilities and at the same time narrowing promotion opportunities leading to a feeling of exclusion and loss of linkages.

After investigating into the typical role stresses faced by different level of bank employers, Sen studied the coping strategies followed by these employees in the face of stress. Although the term 'coping' has acquired a variety of meanings, there is now a growing agreement among various professionals that coping refers to efforts to master conditions of harm, threat or challenge when a routine or automatic response is not readily available. To measure coping strategies Pareek's (1980) PICS (Projective Instrument for Measuring Coping Styles) was utilised to get profiles of coping styles adopted by a person while dealing with role stress situations. The instrument depicts 24 situations, 3 each for eight types of role stress in which one person is narrating the role stress he is experiencing in that situation to another

person who is supposed to respond to the former's problem. The various responses obtained on this instrument are then scored by using a system of categorising the responses on the following 8 dimensions briefly characterised by the type of statements made by the respondents.

1. Impunitive: Statements indicating either simple admission of the stress or indicating that the stress is unavoidable and nothing can be done about it.

2. Intropunitive: Statements indicating self blame or aggression towards one's self for causing stress.

3. Extrapunitive: Statements expressing aggression towards or putting blame on others for a particular stress situation.

4. Defensiveness: Statements expressing either denial of stress or rationalisation of stress.

5. Impersistive: Statements indicating that the respondent is optimistic and hopes that time would solve the problems and that things will work out well in future.

6. Intropersistive: Statements indicating that the role occupant himself should take action to deal with the stress.

7. Extrapersistive: Statements indicating that the person expects someone else would contribute to solution of the problem or dealing with the stress.

8. Interpersistive: Statements indicating that a solution of the stress will be obtained by joint efforts in which the role occupant and others would be involved.

The first four are considered as dysfunctional styles of coping with stress situations as they show avoidance behaviour and the remaining four are functional styles of coping as they are approach oriented.

Some differences in coping styles were found among the employees in the different banks. Although the defensive style was the most frequently used strategy followed by intropersistive style and then impunitive style. Managerial levels of the employees did not seem to have much effect on the coping strategies used except that junior level managers showed significantly more impunitive behaviour than top managers. Top and senior/ middle level managers showed more self-initiated action than junior managers and clerks. No significant sex differences were found, however, women employees showed slightly higher impersistive score and lower defensive score than males. As regards the age factor some interesting trends were found - people in the age group of 36-40 had higher impunitive style than the other groups showing that they are more fatalistic than those who are younger or older to them. Regarding the levels of education, the scores were more or less similar. When income was taken as a factor, it was found that intropersistive style generally increases with income. This could be related to the status and position of a person. The higher the status one has greater is the tendency to solve problems by ones own efforts, probably because of the power and authority the position confers. No significant differences were found with respect to family, marital status and rural or urban backgrounds.

Role Stress and the Indian Executive:

Dr. Sam Batlivala, a consultant medical officer to Glaxo laboratories, compared the stressors felt by the Indian executive at the organisational and at the personal level vis-a-vis his American counterpart. The sample consisted of 230 senior executives working in Banks, textile mills, pharmaceutical, engineering, electrical and petrochemical industries and who took part in a workshop on 'Management of Executive Stress and Role Effectiveness."

The executives pointed out 19 stressors in the organisational front and 15 on the personal front. This list indicated that these executives have more personal stressors than the American executive, but they compared fairly well with their American counterpart on the organisational front.

Insubordination, inadequate training, housing, demanding spouses/and in-laws, integrity, noisy environment, and transfer on jobs were some of the typical stressors faced more by the Indian executive.

The typical coping strategies adopted by these executives for coping with stresses are listed below:

1. Critical analysis and recognising problems.
2. Yoga
3. Practising good management.
4. Sex.
5. If under-rewarded, slow down and make work in proportion to output.
6. Go and talk to the boss/union.
7. Improve self image,
8. Unwinding and going on vacation.

9. Over value outcome of others.
10. Overvalue your inputs.
11. Maintaining better family relationship.
12. Using scientific methods.
13. Being decisive.
14. Acquiring alternative interests or starting other business.
15. Avoiding confrontation.
16. Trust in oneself.
17. Acquiring more qualifications.
18. Using better communication.
19. If over-rewarded, increase input.
20. Decrease your reward.
21. Force him to leave.
22. Change the person with whom you are comparing.
23. Undervalue input.
24. Resign.

Batlivala concludes that there is no one best stress reducing technique but each person learns from his/her own personal experience how to turn stress into a friend.

Computer Professionals and Role Stress:

Pestonjee and Singh (1983) studied the psycho-dynamics of people working in the computer field either as software or hardware personnel. The sample was limited to people who discharged the duties of programmers/system analysts/systems managers or EDP managers. The sample consisted of 102 personnel.

In this study job satisfaction and morale were taken as dependant variables and alienation, participation, involvement and role stress were the independant variables. The hypothesis was that persons scoring high on role stress measure will be less satisfied and score less on the morale measure in comparision to those who score low on the role stress measure.

The psychometric device used to measure job satisfaction, morale and role stress were the 'Satisfaction-Dissatisfaction Employee's Inventory', the 'Employee's Morale Scale' and 'Your Feelings About Your Role'.

The S-D Employer's Inventory was developed by Pestonjee (1973) to provide an estimate of one's satisfaction in four important areas, namely, job, management, personal adjustment and social relations. Job and management area taken together are known as on-the-job factors while the latter are known as off-the-job factors.

The employee's moral scale - EMS was developed by Pestonjee (1973) on the lines suggested by Thurston and Chave (1929). The total scale includes four dimensions of morale, namely (i) fairness of employer's policies and behaviour, (ii) adequacy of immediate leadership, (iii) sense of participation, (iv) sense of worth of the organisation: regard and identification.

'Your Feelings About Your Role' is a scale developed by Pareek (1981, 1983) to measure various types of role stresses. Reference has already been made to this in the work of Sen (1981) and Surti (1982).

Analysis of results indicated the following - Self-role distance was found to exert negative influence on job, management, and social relations areas of job satisfaction in particular and overall satisfaction in general along with all the the dimensions of morale. This indicates that feelings of incongruence between self-concept and the role one has to perform affects attitude towards fairness of employer's policies and behaviour, adequacy of immediate leadership, sense of participation, and regard for and identification with the organisation unfavourably.

Inter-role distance affected job satisfaction and morale infavourably in areas such as job, management, personal adjustment, social relations, fairness of employer's policies and behaviour, adequacy of immediate leadership and regard for and identification with the organisation.

Role Stagnation also affected such areas of job satisfaction as job, personal adjustment, social relations along with one's sense of participation in particular and overall morale in general.

Role Ambiguity, Role Isolation, Role Erosion, Overall Role Stress had detrimental effects on all aspects of job satisfaction and morale.

While Role Overload was found detrimental to such aspects of job satisfaction as job, management, personal adjustment and social relations it seemed to have no effect on the morale of the EDP professionals.

In an earlier study, Pestonjee and Singh (1982) conducted an intensive investigation regarding the relationship between locus of control, motivational climate, psychological participation, role stress and job satisfaction. Job satisfaction was treated as the dependent variable while the rest of the variables were treated as independent variables. For the purposes of comparing job satisfaction of people differing on various independent variables, three groups, namely, high scoring group (HSG), low scoring group (LSG) and medium scoring group (MSG) were created. The sample consisted of 101 officers working in a private sector organisation engaged in generating and distributing electricity.

The 'Satisfaction-Dissatisfaction Employees Inventory' (Pestonjee, 1973, 1981) and 'Your Feelings About Your Role' (Pareek, 1977) were used to measure job satisfaction and employees role stress respectively.

Results indicated that those who scored high on <u>self-role distance</u> measures (HSG) of role stress were less satisfied in comparison to those who have scored medium (MSG) or low (LSG) on this measure. This trend is repeated for all the areas of job satisfaction as also in the case of job satisfaction as also in the case of overall job satisfaction.

Subjects who had scored high on <u>inter-role distance</u> measure (HSG) scored comparatively low on all the dimensions of job satisfaction in comparison to those who have medium (MSG) and low scores (LSG).

Those who scored low on <u>role stagnation</u> dimension of stress scored better on almost all the dimensions of job satisfaction in comparison to those who scored medium (MSG) or high (HSG). When the t-ratios were computed to find out whether the apparent

differences in the job satisfaction of HSG and LSG are real, satistically significant t-ratio were observed on all the job satisfaction dimensions, except for the social relations area ($t = 1.004$, $p = NS$).

Persons scoring low on the role ambiguity measure scored high on the various job satisfaction dimensions as also on overall job satisfaction in comparison to those who have been either medium (MSG) or high (HSG) on the ambiguity measure. When t-ratio's were calculated to find out whether these differences were real it was found that in the case of HSG vs. LSG comparison both the groups differed significantly on different dimensions of job satisfaction except in the case of social relations area ($t = 0.369$, $p = NS$).

Those who were high on role overload were less satisfied on all the dimensions of job satisfaction in comparison to those who experience medium (MSG) or low (LSG) role overload except in the case of social relations aspect of job satisfaction.

Results also showed that those who had low role erosion (LSG) scored high on such job satisfaction dimensions as job area, management area, personal adjustment area, on-the-job as also on overall job satisfaction measure in comparison to those who feel high role erosion. However, in the case of satisfaction in social relations area and off-the-job satisfaction those who feel high role erosion have scored better than those who feel less role erosion.

Persons who were high on role inadequacy were less satisfied in every area of job satisfaction in comparison to those who were low on role inadequacy.

Finally it was seen that those who scored low on overall role stress have scored high on various job satisfaction dimensions in comparison to those who have scored either medium or high on overall role stress.

The Epilogue:

Much has been made out of the concept of stress in modern English speaking world. Physiologists, psychologists and management theorists have unanimously upheld stress as a major issue of modern times. It is interesting to observe that the thinkers of the East, specially on the Indian sub-continent, had addressed themselves to the problem of stress several thousand years ago. They have analysed the phenomenon from various perspectives —the individual as also the environmental perspectives - and gone on to prescribe procedures to overcome stress.

In the recent past again we find a resurgence of interest in studying stress under the influence of West. We find scholars looking at it from physiological - medical angles and social as also the organisational angles. The present review is comprehensive but not complete and the author strongly believes that something more comprehensive will emerge in the years to come. It is worth reiterating here, that the problem of stress is not a noval problem and in Indian thought we find fairly detailed discourses on this issue. Stress is news for the West but not for the East.

TABLE 1

Scaling Score of Life Events in Normals (N = 110)

Life events Sl. No.	Life Events	Rank	Mean	S.D.	C.V.
1	Death of spouse	1	3.92	.42	10.74
2	Marital separation	2	3.72	.72	19.54
4	Death of a close family member	3	3.66	.77	21.10
17	Significant increase in income	4	3.63	.79	21.73
3	Sent to jail	5	3.62	.76	21.17
6	Marriage (of self)	6	3.61	.85	23.67
46	Disappointment in love	7	3.57	.89	25.02
13	Difference in sexual relationship	8	3.56	.92	25.92
49	Spouse unfaithful	9	3.50	.98	28.16
47	A major theft in the house	10	3.48	.92	26.59
5	Serious personal illness	11	3.45	.96	27.90
33	Academic failure	12	3.40	1.00	23.54
24	Demotion	13	3.39	1.01	30.05
27	Son daughter running away	14	3.38	.98	29.15
7	Losing of job	15.5	3.36	1.11	33.14
50	Loss in business	15.5	3.36	1.03	30.86
10	Retirement from job	17	3.34	1.08	32.40
41	Marriage of daughter	18	3.32	1.05	31.66
12	Being pregnant	19	3.30	1.06	32.35
23	Criminal or legal offense	20	3.29	1.06	22.35
26	Criminal or legal offense against family members	21	3.25	1.09	33.68

48	Manopause	22	3.23	1.18	36.82
38	Exit of close family	23	3.22	1.18	36.82
9	Marital reconciliation	24	3.15	1.15	36.42
11	Illness of a close family member	25	3.14	1.08	34.40
19	Death of close friend	26	3.11	1.16	37.47
15	Significant increase in income unexpectedly	27	3.09	1.09	36.22
21	Borrowing money (Rs. 2000/- or more)	28	3.08	1.12	36.37
40	Marriage of son	29	3.05	1.09	35.98
20	Argument/fight with spouse	30	2.99	1.25	43.07
34	Trouble with employer/boss	31	2.98	1.14	38.45
28	Trouble with in-laws	32	2.96	1.17	39.75
44	Partition of the joint family	33.5	2.94	1.25	42.84
18	Moving to another city	33.5	2.94	1.31	44.76
36	Change of religion	35	2.93	1.31	45.01
14	Birth of a child	36.5	2.91	1.33	45.71
51	Child getting married against parents' wishes	36.5	2.91	1.28	44.06
43	Leaving home for spirituality	38	2.86	1.34	46.93
22	Promotion	39	2.81	1.23	43.76
16	Close family members starting work	40	2.75	1.32	48.22
8	Wife starts of leave work	41	2.61	1.28	49.07
32	Close family member stopped working	42	2.46	1.28	52.06
29	Leaving school	43	2.43	1.37	56.57
35	Moving to house in the same city	44	2.35	1.29	54.91

42	Getting too much dowry	45.5	2.19	1.22	55.74
52	Admission of child to school/ college	45.5	2.19	1.30	59.46
25	Grand child born	47	2.11	1.28	60.57
45	Getting too little dowry	48	2.03	1.25	61.76
39	Minor violation of law	49	2.01	1.20	59.78
31	Forcasts of important future changes	50	1.81	1.18	65.37
37	Celeberation of major festival	51	1.76	1.28	72.84
30	Death of cow or dog in household	52	1.50	.94	62.81

TABLE 2

Showing mean ranked stress scores and S.D. of each item

Rank No.	Life events	Mean stress score	S.D.
1.	Death of spouse	95	21.2
2.	Extra-marital relation of spouse	80	29.1
3.	Marital separation/divorce	77	34.1
4.	Suspension ordismissal from job	76	28.8
5.	Detention in jail of self or close family member	72	36.9
6.	Lack of child	67	40.0
7.	Death of close family member	66	34.9
8.	Marital conflict	64	29.3
9.	Property or crops damaged	61	32.6
10.	Death of friend	60	26.8
11.	Robery of theft	59	34.2
12.	Excessive alcohol or drug use by family member	58	36.1
13.	Conflict with in-laws (other than over dowry)	57	27.8
14.	Broken engagement or love affair	57	33.7
15.	Major personal illness or injury	56	29.5
16.	Son or daughter leaving home	55	30.6
17.	Financial loss or problems	54	28.5
18.	Illness of gamily member	52	32.5
19.	Trouble at work with colleagues, superiors or subordinates	52	30.3
20.	Prophecy of astrologer or palmist etc.	52	31.4

TABLE 2 (Continued).

Rank No.	Life events	Mean stress score	S.D.
21.	Pregnancy of wife (wanted or unwanted)	52	34.6
22.	Conflict over dowry (self or spouse)	51	38.2
23.	Sexual problems	51	28.9
24.	Self or family member unemployed	51	39.1
25.	Lack of son	51	43.3
26.	Large loan	49	32.6
27.	Marriage of daughter or dependent sister	49	32.6
28.	Minor violation of law	48	35.0
29.	Family conflict	47	29.8
30.	Break-up with friend	47	27.5
31.	Major purchase or construction of house	46	19.4
32.	Death of pet	44	31.7
33.	Failure in examination	43	37.2
34.	Appearing for an examination or interview	43	33.1
35.	Getting married or engaged	43	29.0
36.	Trouble with neighbour	40	30.3
37.	Unfulfilled commitments	40	25.7
38.	Change in residence	39	25.9
39.	Change or expansion of business	37	34.0
40.	Outstanding personal achievement	37	33.3
41.	Begin or end schooling	36	31.0
42.	Retirement	35	34.7

TABLE 2 (Continued).

Rank No.	Life events	Mean stress score	S.D.
43.	Change in working conditions or transfer	33	33.6
44.	Change in sleeping habits	33	25.5
45.	Birth of daughter	30	39.5
46.	Gain of new family member	30	24.3
47.	Reduction in number of family functions	29	29.3
48.	Change in social activities	28	22.7
49.	Change in eating habits	27	27.7
50.	Wife begins or stops work	25	32.4
51.	Going on pleasure trip or pilgrimage	20	22.7

TABLE 3

Professionwise variance results of Role Stress

Types of Role Stresses \ Professions	Researchers (N=40)		Doctors (N=40)		Nurses (N=40)		Social workers (N=40)		School teachers (N=40)		Uni. and college teachers (N=40)		Gazetted officers (N=40)		Bank Employees (N=40)		F-ratio
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	(dfs. 7,312)
SR	12.4	3.4	10.6	2.8	12.0	3.4	10.5	3.2	10.6	3.0	10.4	2.7	11.1	3.1	13.1	4.2	3.91($p < .01$)
IR	9.6	3.7	12.7	5.0	12.4	4.9	9.7	4.7	10.6	4.2	9.6	4.4	9.5	3.5	10.5	4.1	3.58($p < .01$)
RS	12.5	4.7	10.2	4.3	14.1	4.2	10.0	3.9	10.9	4.1	10.8	3.9	10.5	4.4	12.9	3.9	5.00($p < .01$)
RA	8.9	3.6	8.7	2.7	10.0	3.6	8.8	3.7	9.3	4.9	7.8	2.9	7.9	2.6	9.6	4.5	1.85(NS)
RO	9.8	3.6	9.2	4.0	12.1	4.2	10.6	4.6	9.7	4.0	7.6	3.0	10.3	4.0	10.8	4.1	4.33($p < .01$)
RI	10.7	4.1	11.2	3.6	12.3	2.8	9.9	4.0	10.1	3.7	9.5	3.5	10.9	3.6	12.4	3.6	3.50($p < .01$)
RE	10.4	3.6	10.2	4.2	11.3	4.0	9.0	3.8	10.3	4.3	8.3	2.5	9.7	3.4	10.9	3.7	2.74($p < .05$)
RIn	10.4	4.2	9.5	3.5	11.1	4.8	9.3	3.5	10.2	4.1	8.9	2.8	9.1	3.4	10.9	3.9	1.98(NS)
Total Role Stress	84.5	21.1	82.3	21.6	95.1	22.9	77.7	22.0	81.6	26.4	72.8	17.6	78.8	19.5	91.0	20.4	4.51($p < .01$)

TABLE 3.5

RANK ORDER OF CORRELATIONS IN ROLE STRESSES AMONGST FOUR LEVELS

	Levels		
	Top Management	Senior Middle-Management	Junior Management
Senior/Middle Management	.74		
Junior Management	.59	.84	
Clerical Staff	.19	.76	.83

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