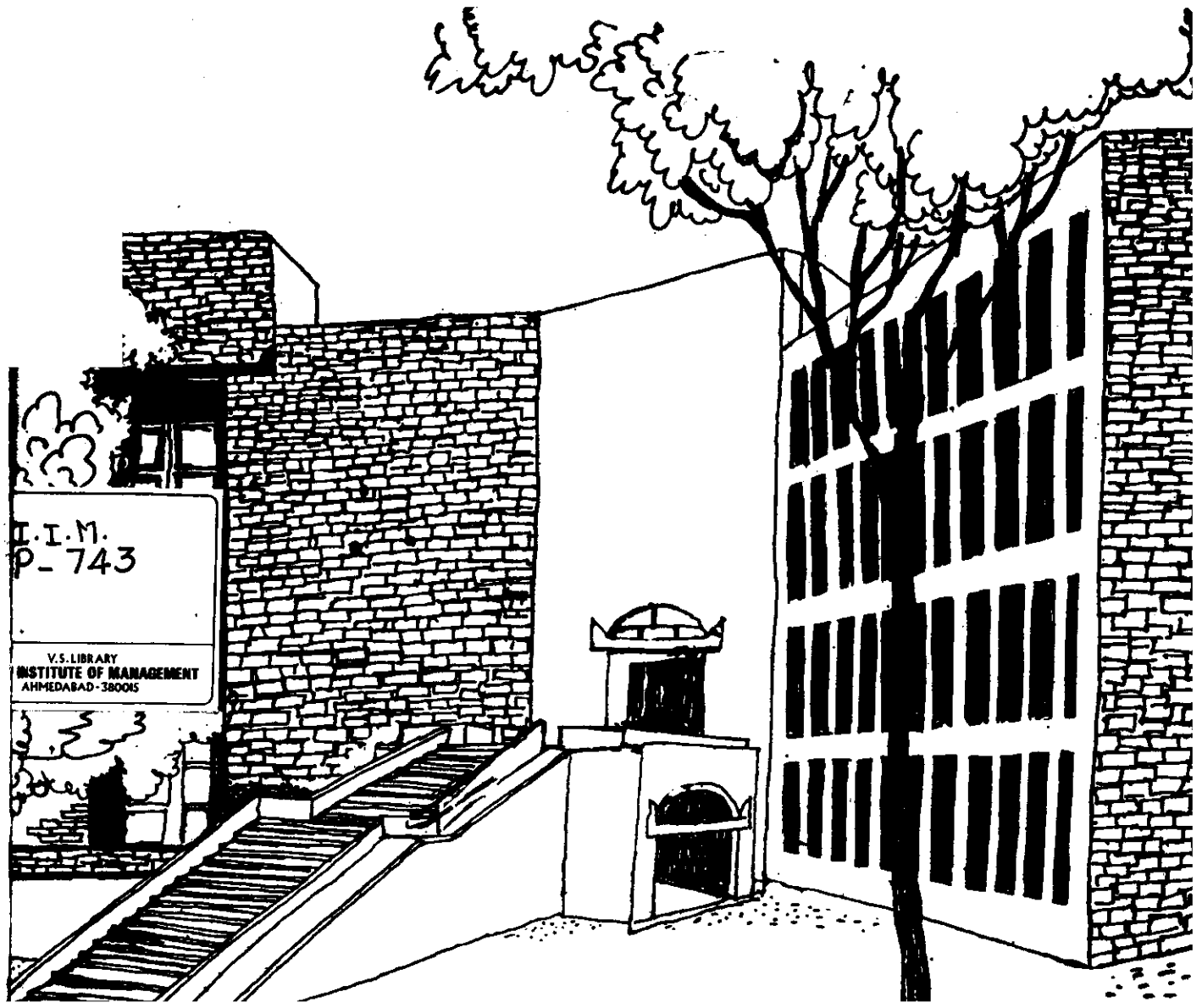




Working Paper



DOES TYPE-A MODERATE THE STRESS - ANGER
RELATIONSHIP IN CASE OF MANAGERS

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ABSTRACT

The study reported in this paper examines the moderating role of Type-A pattern of behavioural disposition on the relationship between role stress and state-trait anger. A set of three psychometric instruments, namely, ORS Scale (Pareek, 1983), Can You Type Your Behaviour (Gmelch, 1982) and State-Trait Anger Scale (Spielberger et al, 1983) were administered on 547 management professional for the information pertaining to role stresses, Type-A-B behaviour patterns and state-trait angers respectively. Pearson's product moment coefficient of correlation, subgrouping and hierarchical multiple regression analyses were used to analyse the data.

Findings of the study revealed that Type-A pattern of behavioural disposition and state-trait anger associate positively and significantly with role stress variables. Further, the coefficients of correlation between state-anger and role stresses were found to be significant for Type-B managers than Type-As. Test of significance of difference revealed that relationship of state anger with six role stress variables, namely, interrole distance, role erosion, role overload, role ambiguity, resource inadequacy and overall role stress were significantly different and higher for Type-B managers. On the other hand, coefficients of correlation between trait anger and role stress variables were higher for Type-A managers as compared to Type-Bs. However, none of the relationship between the variables was found to be significantly different. Hierarchical multiple regression analysis revealed that form of relationship of two role stress variables (RS and REC) with state anger and of four role stress variables (RS, RE, RA and ORS (T)) with trait anger were significantly moderated by Type-A behaviour pattern.

DOES TYPE-A MODERATE THE STRESS - ANGER RELATIONSHIP IN CASE OF MANAGERS?

INTRODUCTION

The ill-effects of stress-manifestations on organisations and their role incumbents are numerous. In the organisational context we can safely assume that role stresses can inhibit all the growth and change strategies of the organisation - no matter whether they are attempted through OC, OD or HRD interventions. So long as the stressors are dominant in the organisation, all the skills, efficiency and training of its role incumbents remain curtailed and unproductive. Literature on this issue, for example, reports number of psychological symptoms associated with stress. The general conclusion is that role stresses are positively related with individual tension, anxiety, depression, low self-esteem, psychological fatigue and job dissatisfaction (Burke and Weir, 1980, Sarason and Johnson, 1979, Pestonjee and Singh, 1982; Das 1982; Shrivastava, 1983; Sharma and Sharma, 1983; Pestonjee, 1987; Singh, 1987). Besides, these stresses also associate significantly with physiological symptoms such as blood pressure, coronary heart disease, ulcers etc. and behavioural symptoms such as absenteeism, turn over, excessive smoking, escapist drinking etc. (Margolis et al, 1974; Glass, 1977). Above evidences show that excessive stress is harmful for both the well-being of an individual as well as the organisation.

It appears that failure to adopt a long range view of constraint faced by managers and lack of emphasis on personnel related systems are in the background of the consequences of stresses. However, the person related consequences of stress are vital. It is rather surprising that researchers have not paid attention to anger as one of the major stress manifestation. There

is hardly any study (except one, conducted by senior author) which dealt with the stress-anger relationship whereas evidences suggest that both stresses and anger are interrelated variables. For example, stresses are reported to be causal of psychosomatic and sometimes psychotic disorders. On the other hand, traditional studies of clinical psychology have emphasized the maladaptive effects of anger as important in the etiology of psychoneurosis, depression and schizophrenia. Secondly, human adaptation and certain form of role stresses seem to be closely related, viz., both stress and anger involve similar emotions, similar motives and even corresponding form of behaviour.

Literature on role stresses give some hints about the relationship between stress and anger. For example, sengal (1985) while testing the moderating effect of some needs on stress and strain reported that role stresses such as role conflict and role ambiguity associate significantly with job anxieties - the correlations range between .33 to .58. Pestonjee (1987) tested the relationship of role stress variables with state and trait angers in case of three job categories of management personnel, namely, top management, middle management and IAS officers. Findings of the study revealed that role stresses associate positively with both, state and trait anger in case of top and middle management personnel. However, trait anger associates significantly with several role stress variables as compared to state anger. The same pattern was evident in regard to IAS officers. The present study is an attempt in the same direction which may be summarized as follows:

- i) to establish the relationship between role stresses and state-trait anger; and

- ii) to explore the moderating effect of type-A behaviour on the relationship between above variables.

State-Trait Anger:

In the psychological studies, so far done on anger, state-trait distinction of anger was not highlighted. Researchers have used hostility and aggression interchangeably and as Biaggio et al (1981) have noted this conceptual confusion is reflected in a diversity of measurement operations of questionable validity. Spielberger et al (1983), for the first time differentiated these constructs: Hostility has the connotation of a complex set of attitudes that motivate aggressive behaviour whereas aggression generally implies destructive or punitive behaviour. The concept of anger, as compared to other two constructs, usually stands for an emotional state that consists of feelings that vary in intensity, from mild irritation or annoyance to fury and rage. They, on the basis of conceptual speculation and factorial analysis, further distinguished anger of two types. First, state anger as an emotional state or condition that consists of subjective feelings of tension, annoyance, irritation, fury and rage with concomitant activation or arousal of the autonomic nervous system. It varies in intensity and fluctuates over time as a function of perceived injustice or ~~affront or frustration~~ resulting from the blocking of goal directed behaviour. Second, trait anger is defined in terms of individual differences in the frequency that state anger was experienced over time. Hence, person high in trait anger is more likely to perceive a wide range of situations as anger provoking, and to respond to such situations with elevation in state anger.

It is important to note that 'blocking of goal directed behaviour' is the major causal aspect for state anger and in stressful situations, this phenomenon is very common. Hence, it is very much logical to assume that stress and state anger will covary. The same may be argued for trait anger.

Type A-B Distinction of Behavioural Disposition as Moderator:

Perhaps the major limitation of research studies in area of stress seems to be relative lack of concern given to mediators/moderators of stress-strain relationship (McMichael, 1978). House (1974) while pondering on varying findings related to stress-strain relationship has conceived that "evidence that a result does not generalise across major demographic groups suggests that there are important individual (physiological/psychological) or social environmental variables mediating the relationships in question"(P 24). There are at least two ways in which stress-strain relationship can be moderated. Variation in stress-strain relationship depends on-

- i) Individual differences in personality, motivation, involvement, job level, sex, age; (Sharma, 1984) and
- ii) Socio-environmental conditions: the nature, type and extent of one's social relationship that influence one's adaptation to stress.

Researchers attempted to test the moderating effect of a number of variables and reported varying results. Some such variables which were subjected to rigorous statistical analyses include group cohesiveness, higher order need strength, autonomy, group support, locus of control, type-A behaviour etc. Many researchers have tested the moderating effect of Type-A pattern of behaviour on stress-strain relationship (Caplan and Jones, 1975; Caplan, Cobb and French, 1975). Friedman and Roserman (1974) have defined this

coronary prone behaviour syndrome as "an action-emotion complex that can be observed in any person who is aggressively involved in a chronic incessant struggle to achieve more and more in less and less time, even if required to do so against the opposing efforts of other things or other persons". The over manifestations of this struggle include numerous behavioural outcomes. The 'core' elements of Type-A's are identified to be extr of competitiveness, a constant struggle against time, an achievement orientation, aggressiveness, and an intense sense of time urgency. This is in contrast to a Type-B orientation which shows inverse behavioural pattern and displays relative immunity to coronary heart disease. It is repeatedly observed that the involvement of the Type-A and preoccupation with work at the best of other life pursuits is so much that they can better be described as 'work addicts with an exaggerated sense of success ethic'.

Much of the research on Type-A behaviour in the work setting suggest that the stressors within the work environment itself enhance Type-A behaviour patterns (Rosenman, 1978; Davidson and Cooper, 1980). Howard et al (1976) for example, investigating the effects of stressors on managers suggest that the conditions most responsible for facilitating Type-A behaviour are those encountered in the work environment. Friedman et al (1960) found that Type-A middle managers had higher levels of catecholamine and were more physiologically aroused during hours at work than Type-B managers.

Another important characteristic of Type-A's emerged in Glass's (1977) study is that Type-A individuals have 'a high need for control' which may be presumed to underlie their concern with competition, their strong reaction

to being thwarted by frustration and their fear of missing dead lines or wasting time. It was found that Type-A syndrome emerges primarily when the environment poses some threat to the individual's sense of control (Carver et al, 1976). As Davidson and Cooper (1980) put it, those work situation related factors which can lead to decreased levels of perceived control are the source of most stress for Type-A individuals. The work environment factors which have been identified as fitting into this category include job involvement, responsibility for people and things, role ambiguity, role conflict, over promotion, lack of participation in decision taking, poor relationships at work and work overload (Chesney & Rosenman, 1980; Cummings and Cooper, 1979; Caplan and Jones, 1975; Matthews and Seal, 1978).

In the light of above stated characteristics, moderating nature of Type-A can be theorised as follows: Type-A's concern for high control over environment in organisational setting cause susceptibility in them resulting into higher degree of uncertainty in relation to goal setting, task performance, information processing and organisational control. This uncertainty calls upon at least two types of maladaptive coping behaviour: One, time urgency which makes them feel irritation and impatience when forced to wait (Glass, 1977). Two, suppression of symptoms, that is why although they self impose deadlines and increase their goals, yet they get fatigue, hostility and physical as well as psychological symptoms under pressure (Davidson and Cooper, 1980). Therefore, individuals with Type-A pattern of behavioural disposition, in stressful situations are not able to (a) acquire higher skills, (b) converge their energies in fruitful outcome, and/or (c) feel relaxed and pleased when a particular goal is

coronary prone behaviour syndrome as "an action-emotion complex that can be observed in any person who is aggressively involved in a chronic incessant struggle to achieve more and more in less and less time, even if required to do so against the opposing efforts of other things or other persons". The over manifestations of this struggle include numerous behavioural outcomes. The 'core' elements of Type-A's are identified to be extreme competitiveness, a constant struggle against time, an achievement orientation, aggressiveness, and an intense sense of time urgency. This is in contrast to a Type-B orientation which shows inverse behavioural pattern and displays relative immunity to coronary heart disease. It is repeatedly observed that the involvement of the Type-A and preoccupation with work at the best of other life pursuits is so much that they can better be described as 'work addicts with an exaggerated sense of success ethic'.

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attained. Overall their capacity to tolerate stressors and chances to cognize stressful events in relatively more positive way is poor which in turn increases their anger and other stress reactions.

Contrary to Type-A's, the people with Type-B pattern of behavioural disposition do not emphasise 'need for control' of work environment. Naturally, Type-Bs are more likely to be realistic, do not feel frustrated and annoyed as Type-A's or manifest maladaptive coping behaviours. In the stressful situation these characteristics act as a resource, intervene in appraisal of stressors and therefore, weaken the stress-anger relationship.

In the light of above, we have hypothesized that-

- I. Relationship between role stresses and state-trait anger will be high and significant in case of Type-B managers as compared to Type-A managers.
- II., The form of relationship between role stress factors and state-trait anger will be moderated by Type-A pattern of behavioural disposition.

Sample:

Data for this study were collected from 547 management professionals, involved in managerial activities in public as well as private sector organisations. The average age of the sample was about 45 years.

Instruments:

A battery of three psychological instruments namely, DRS Scale, Can You Type Your Behaviour and The State-Trait Anger Scale was administered on

on the sample. 'ORS Scale' developed and standardized by Pareek (1981) has been used to obtain scores pertaining to ten different types of role stress one encounters in his job. These role stress factors are as follows: Interrole distance (IRD), role stagnation (RS), role-expectation conflict (REC), role erosion, role overload, role isolation, personal inadequacy, self-role distance, role ambiguity and resource inadequacy. The scale is composed of 50 items, 5 for each role stress dimension. Each statement can be given grade from 'Zero' to 'four'; 'Zero' if the respondent rarely or never feels the way described in the item and 'four' if he very frequently or always feels the way described in the item. The total scores for role-stress can be obtained by adding the grades of each item to a particular area. Further, total role stress score is obtained by adding the scores of all the ten dimensions. The test-retest reliability was found to be .45, .63, .65, .53, .37, .57 and .73 for SRD, IRD, RS, RA, RO, RE, RI and ORS (T).

'Can You Type Your Behaviour?' developed by Gmetch (1982) was used to obtain the scores on Type-A pattern of behavioural disposition. 20 statements constitute this scale. As the items are framed in the form of interrogative statements, these can be responded in term of 'yes' or 'no'. If total number of items responded affirmatively by the respondents exceed to 10.50, it represent that the subject has predominantly Type-A pattern of behavioural disposition.

'The State-Trait Anger Scale' developed by Spielberger (1980) was used to obtain scores on two types of angers, namely, state anger (S-anger) and trait anger (T-anger). There are total 30 statements in this questionnair

first 15 represents to state anger whereas latter 15 represents trait anger. In responding to S-anger, respondents are asked to report the intensity, of their feelings of anger 'right now' by rating themselves on the following four-point scale: (1) not at all, (2) somewhat, (3) moderately so, and (4) very much. In responding to trait anger items, subjects were instructed to report the frequency that they had experienced feeling of anger by rating themselves, again on four point scale such as (1) almost never, (2) sometime (3) often, and (4) almost always. Total score of both types of anger is obtained simply by adding the scores given to each item of state and trait angers separately.

Analysis Plan:

Potential moderating or buffering effects of Type-A pattern of behaviour was assessed by both multiple hierarchical regression and subgrouping analyses. Literature suggests that selection of particular statistical tool to test moderator relationship largely depends on whether one views particular moderator variable as comprised of discrete levels or alternatively as a relatively continuous measure. Zedeck (1971), for example, noted that subgrouping analysis is more appropriate when the proposed moderator variable discriminated among relatively discrete groups, are linearly unrelated. On the other hand, moderated regression technique is more applicable when the moderator was viewed as relatively continuous. Contrary to above line of thought, we can suggest that there are two aspects of the relationship between a quantitative dependent variable and independent variable and the relationship between the variables may or may not remain the same with regard to both types of relationships over variation in third variable or moderator. These aspects relationships are: one, the degree of relationship between the variables,

indicated by the coefficient of correlation; and two, the form of the relationship between the variables described by the regression coefficient or beta coefficient. Arnold (1982) while highlighting above aspects of relationship between the variables has suggested that subgrouping analysis reveals the moderator's effect on degree of relationship whereas multiple hierarchical regression analysis is best tool to study moderator's effect on form of relationship between the variables (Arnold, 1982).

In the present study, for the purpose of subgrouping analysis data set was trichotomized on the basis of quartile ranges of scores on Type-A behaviour in Low, Medium and High scoring groups. Further, product moment coefficient of correlation were computed between Anger and ORS variables for low scoring and high scoring groups on Type-A pattern of behavioural disposition and tested for significance of differences. It was established that buffering hypothesis would predict significantly higher positive correlation for HSG. Further, for the hierarchical multiple regression procedure, beta-coefficients for interaction terms produced by prediction equations containing each role stress variable, Type-A and its interaction term were tested for level of significance. The buffering hypothesis would predict statistically significant beta-coefficients for each interaction term.

Results and Discussion:

Table 1 presents mean, SD and Correlation Matrix pertaining to role stress Type-A pattern of behavioural disposition and state-trait anger in case of managers. It is apparent that role erosion followed by interrole distance resource inadequacy and role isolation are major contributors whereas role ambiguity and personal inadequacy are least contributor of managerial stress.

Correlation matrix presented in table 1 shows that out of 91 coefficients of correlation, 80 were found statistically significant which ranges from .1 to .76. Some common pattern of interrelationship between these variables are immediately obvious:

- i) All the coefficients of correlation among variables under study, namely, role stress variables, type-A behaviour, and state-trait anger were found positive. It suggests strong tendency of above variables to go up or down together. However, the only exception was role erosion vs role overload which correlated negatively though insignificantly.
- ii) Magnitudes of correlation of above variables seem to vary considerably. For instance, value of coefficients of correlation among role stress variables ranged between .06 to .76, for role stresses and type-A behaviour, between .06 to .16, for role stresses and state anger, between .04 to .24, for role stresses and trait anger, between .09 to .38, and for type-A behaviour and state-trait anger between .24 to .38.
- iii) Similarly, number of significant coefficients of correlation were also found to vary. For example, out of 55 correlations among role stress variables, 53 were significant. Further, out of 11 correlations of role stress variables with Type-A behaviour, state anger and trait anger 6, 9 and 11 coefficients of correlation were respectively found to be significant.

Table 2 summarises the result of subgrouping analysis for both LSG (i.e. Typ and HSG (i.e. Type-As) of managers on Type-A Scale of behavioural disposition. It can be seen from this table that all the role stress variables in case of

LSG were correlated significantly with state-anger. On the other hand, in case of HSG, only 3 role stress variables namely role stagnation, role isolation and personal inadequacy as well as overall role stress correlated significantly with state-anger scores. As regards stress-trait anger relationship, trait-anger correlated significantly with all the role stress variables in case of HSG, whereas only with interrole distance, role stagnation, role expectation conflict, role overload, role isolation, self-role distance, resource inadequacy and overall role stress in case of LSG.

A comparative look at coefficients of correlations obtained between state anger vs role stress variables for three data sets, namely, LSG, HSG and original data-set revealed that the magnitude of coefficients of correlation obtained for LSG were higher than the magnitude of coefficients of correlation for original data set, as well as HSG. Similar comparison was made for the correlations obtained between role stress variables and trait anger. It was found that magnitude of coefficient of correlation were higher for most of the relationships such as, trait anger vs interrole distance, role stagnation, role overload, self-role distance, role ambiguity and overall role stress in case of HSG as compared to original data set or LSG. Interestingly, it indicates that state anger and role stress scores go up or down together and this trend predominantly prevails in case of managers having Type-B pattern of behavioural disposition. Similar interpretation can be drawn for the relationship between trait anger and role stress variables which is more evident in case of Type-A managers.

Test of significance of difference in coefficients of correlation for low and high scoring groups on Type-A pattern of behavioural disposition, however, revealed that coefficients of correlation between state anger and ORS

variables were statistically significant. More precisely coefficients of correlation between state anger and six role stress variables, namely, interrole distance ($t = 3.32, p < .01$), role erosion ($t = 2.25, P < .05$), role overload ($t = 1.96, P < .05$), role ambiguity ($t = 1.96, P < .05$), resource inadequacy ($t = 2.34, P < .05$), and overall role stress ($t = 2.05, P < .05$) were found to be significantly higher in case of LSG (i.e. Type-Bs) than in case of HSG (i.e. Type-As) (refer Table 2).

By and large, above observations are contrary to our buffering hypothesis. We were expecting that degree of relationship of role stress variables with state and trait anger will be higher in case of Type-A managers as compared to type-Bs. This pattern is, though visible in case of role stress-trait anger relationship differences in coefficients of correlation, however, were not found to be statistically significant. Surprisingly, the relationship between role stress-state anger emerged not only higher but also significantly different for Type-B managers as compared to Type-As. Naturally, our hypothesis pertaining to degree of relationship between stress and state anger deserve to be rejected. Though, artifact of sampling error and chance factors may be argued as reason for such findings, the maladaptive coping behaviour particularly 'suppression of symptoms' adopted by Type-As may not be overruled as causal for this. Carver et al (1976), for example, noted that to attain control over environment, Type-As suppress 'symptoms of fatigue'. According to Weidner and Matthews (1978), this suppression of symptoms and fatigue is greater in Type-As when they believe the work or task is to continue, as opposed to being completed. Moreover, suppression of hostility has been shown to be a significant predictor of CHD among white

collar men and working women (Haynes et al, 1979). Relying on above findings, it may be stated that Type-As not only deny physical and psychological symptoms, impose deadlines on themselves and increase goals but also that once, their work load has been lifted, they experience fatigue and distress and therefore, get into struggles in the work environment in order to alleviate this discomfort. In other words, situational variables which account for state anger are natural allies of Type-A behavioural disposition and therefore, their state anger correlates mildly or moderately with role stress scores. On the other hand, Type-Bs possess relatively different set of behaviour associated with Type-A persons. Hence, contrary to Type-As, Type-Bs react to stressful situations with increased state anger and vice-versa. Therefore, magnitude of coefficients of correlation between above stated stresses and state-anger, in case of Type-B managers were higher and statistically significant from Type-As.

Table 3 summarises the partial coefficients (b_3) associated with interaction terms of Type-A pattern of behaviour X role stress variables for two dependent variables, namely, state-anger and trait-anger. It can be seen from this table that out of eleven interaction terms for each dependent variable, two, namely, role stagnation X Type-A ($b_3 = .024$, $t = 2.18$, $P < .05$) and role expectation conflict ($b_3 = .016$, $t = 1.70$, $P < .10$) were found to be significantly contributing to state-anger. On the other hand, four interaction terms, namely, role stagnation X Type-A ($b_3 = .046$, $t = 2.64$, $P < .05$), role erosion X Type-A ($b_3 = .063$, $t = 3.53$, $P < .01$), role ambiguity X Type-A ($b_3 = .05$, $t = 1.83$, $P < .10$) and overall role stress X Type-A ($b_3 = .005$, $t = 1.88$, $P < .10$) were significantly contributing to prediction of trait-anger. This means that the form of relationship of state-anger with role

erosion and role expectation on one hand, and form of relationship of trait anger and role erosion, role stagnation, role ambiguity as well as overall role stress on other hand were significantly moderated by Type-A pattern of behavioural disposition. We have already noted that role stress variables positively correlate with Type-A behaviour (see Table 1). In the light of this fact, positive and significant interaction terms indicate that when the respondents scored higher on type-A pattern of behavioural disposition (i) state anger scores increased significantly with increase in scores on role stagnation and role expectation conflict and, (ii) trait anger score increased significantly with increase in scores on role stagnation, role erosion, role ambiguity and role stress (total). On other hand, in case of Type-Bs, scores on above stated variables decreased significantly. In other words, form of relationships pertaining to these variables were found to be significantly moderated by Type-A pattern of behavioural disposition and hence, the buffering hypothesis is partly retained.

This is important to note that all the beta coefficients of interaction terms were found to be positive. However, the only exception were the beta coefficients of interaction terms of Type-A with interrole distance, role-erosion and role overload for state anger; and Type-A X role overload for trait anger. It shows that by and large, Type-A pattern of behaviour moderate the form of relationship between role stresses and state-trait anger though this moderating effect was found to be statistically significant for six relationships only - two of role stresses vs state anger and four of role stresses vs trait anger.

Conclusion:

Above analyses reveal some interesting information. First, role erosion and interrole distance are major whereas resource inadequacy and personal inadequacy are least contributor of managerial stress. Second, both independent variables namely, Type-A pattern of behavioural disposition and state-trait anger significantly and positively associate with role stresses indicating that these are genuine person related correlates of role stress. Thirdly, Type-A pattern of behavioural disposition moderates the degree of relationship between role stresses and trait anger. Fourthly, it also moderates the form of relationship of role stresses with state anger and trait anger. However, rigorous statistical analyses have not supported the former conclusion whereas partly supported the latter one. ,

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Table 1

Correlation matrix, Means and SD for the variables under study in case of manager (N = 547)

Sl. No.	Variables	IRD	RS	REC	RE	RD	RI	PI	SRD	RA	RIn	ORS (T)	Type-A	Anger-S	Anger-T	Mean	SD
1.	IRD	X	.26*	.35*	.06	.55*	.21*	.23*	.25*	.17*	.25*	.55*	.16*	.08	.29*	6.37	4.64
2.	RS		X	.50*	.37*	.37*	.54*	.34*	.42*	.47*	.33*	.73*	.06	.18*	.28*	3.70	3.41
3.	REC			X	.22*	.49*	.53*	.40*	.45*	.51*	.40*	.76*	.12*	.18*	.26*	4.21	3.47
4.	RE				X	-.04	.39*	.05	.30*	.34*	.16*	.48*	.06	.04	.18*	6.84	4.01
5.	RD					X	.28*	.34*	.31*	.27*	.34*	.62*	.16*	.14*	.21*	3.71	3.62
6.	RI						X	.30*	.42*	.51*	.33*	.72*	.15*	.17*	.27*	4.72	3.61
7.	PI							X	.28*	.35*	.25*	.53*	.07	.17*	.20*	3.25	3.16
8.	SRD								X	.45*	.28*	.60*	.10**	.12**	.22*	4.03	3.95
9.	RA									X	.38*	.68*	.09	.19*	.23*	2.38	2.87
10.	RIn										X	.52*	.09	.16*	.18*	4.74	5.77
11.	ORS (T)											X	.16*	.24*	.38*	43.44	23.31
12.	Type-A												X	.14*	.09	10.02	5.83
13.	Anger-S													X	.18*	18.32	5.91
14.	Anger-T														X	26.75	7.17

*Significant at .01 level.

**Significant at .05 level.

Table 2

Test of Moderating Effect of Type-A Pattern of Behavioural Disposition on the Degree of Relationship Between Role Stress Variables and State-Trait Anger.

Sl. No.	S/T Anger Variables	Role Stress Variables										
		IRD	RS	RES	RE	RO	RI	PI	SRD	RA	RIn	ORS (T)
1.	Correlations with strait-anger for original data set	.08	.18*	.18*	.04	.14*	.17*	.17*	.12**	.19*	.16*	.24*
2.	Correlations with state-anger for LSG (N = 187)	.25*	.31*	.23*	.16**	.26*	.17**	.23*	.22*	.31*	.33*	.37*
3.	Correlations with state-anger for HSG (N = 197)	-.08	.17**	.12	.07	.06	.16**	.19**	.11	.11	.09	.15**
4.	Value of CR Test	3.22*	1.37	1.67	2.25**	1.96**	.10	.39	1.07	1.96**	2.34**	2.05**
5.	Correlations with trait-anger for original data set	.29*	.28*	.26*	.18*	.21*	.27*	.20*	.22*	.23*	.18*	.38*
6.	Correlations with trait-anger for LSG (N = 187)	.25*	.21*	.24*	.10	.22*	.23*	.13	.21*	.13	.25*	.29*
7.	Correlation with trait-anger for HSG (N = 197)	.31*	.29*	.22*	.21*	.22*	.23*	.20*	.28*	.25*	.14**	.40
8.	Value of CR Test	.58	.78	.20	1.07	.00	.00	.68	.68	1.07	1.17	1.07

* Significant at .01 level.

** Significant at .05 level.

Table 3

Hierarchical Regression Analysis to test the moderating effect of Type-A behaviour on the form of relationship between role stress variables and state-trait anger in case of managers.

Sl. No.	Interaction Term	State-Anger			Strait-Anger		
		b_3	SE_{b_3}	t	b_3	SE_{b_3}	t
1.	IRD X Type-A	-.005	.01	.50	.023	.0158	1.44
2.	RS X Type-A	.024	.011	2.18**	.046	.017	2.64*
3.	REC X Type-A	.016	.01	1.70***	.008	.016	0.50
4.	RE X Type-A	-.0022	.012	.19	.063	.018	3.53*
5.	RO X Type-A	-.011	.013	.83	-.0031	.021	0.16
6.	RI X Type-A	-.0083	.014	.60	.01	.10	0.20
7.	PI X Type-A	.017	.014	1.23	.023	.022	1.05
8.	SRD X Type-A	.018	.014	1.27	.02	.02	1.00
9.	RA X Type-A	.009	.017	.52	.05	.027	1.83***
10.	RIn X Type-A	.003	.012	.23	-.017	.019	0.86
11.	DRS (T)X Type-A	.0021	.0017	1.24	.005	.0026	1.88***

*Significant at .01 level.

**Significant at .05 level.