

STRESS OR SATISFACTION IN A WORLD OF PROJECTS

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ABSTRACT

As an increasing number of organisations adopt projectised approaches, more people are moving from employment that focuses on processes and operations to involvement in projects. Simultaneously the pressures of work life are mounting. Expected response times have reduced from a week to send a report by post, to instant delivery by Email, anywhere in the world. Multi-skilling and communications technology mean that people now type or dictate their own E-mails and take their own phone messages on mobile phones wherever they may be. There is little peace and increasing pressure to perform.

Job security is a concept that evokes nostalgia, and restructuring has become a way of life. There are many new patterns of work and career progression and development are increasingly an individual rather than a corporate responsibility.

Those who work in traditional project based industries or who made a clear choice to work on projects in many ways have a head start on the rest of the working community. They have chosen an essentially mobile career, often with no job security beyond the completion of the current project and with a clear emphasis on responsiveness and achievement of results. Even for these project managers by choice, the pressure is mounting. Interdependence between projects, and between projects and complex internal and external environments, requires a high tolerance for ambiguity. Linear approaches and straightforward plans rarely work anymore – if they ever did. Downsizing and reduced timescales have increased workloads and communications technology means that project managers are rarely out of reach of project demands.

How satisfied or stressed are project managers? This paper discusses the nature of work-related stress and satisfaction as experienced by those involved in projects and suggests that project management roles may provide favourable conditions for effective stress management in an increasingly demanding work environment. Profiles of stress and satisfaction of personal, family, professional and career development needs of project managers are drawn from a survey of over 323 project personnel operating in a range of project environments.

BACKGROUND

Work-related stress and satisfaction have been the subject of interest and enquiry for much of this century and can be related to concern for their impact on work performance.

Job satisfaction

Systematic study of job satisfaction is considered by Locke (1976 pp. 1298-99) as traceable to the 1930's when Hoppock (1935) reported on the first intensive study in the area. This study emphasised the multiplicity of factors that could affect job satisfaction including fatigue, monotony, working conditions, supervision and achievement. These factors have continued to attract interest. More recently, (Prosser et al. 1997) in a study of stress and satisfaction among hospital and community mental health workers, identified four sources of job satisfaction: being career, working with people, management and money. While Guppy and Rick (1996, p.159) found a strong association between perceived control and reported job satisfaction amongst white-collar public sector employees.

Locke (1976) defines job satisfaction as *resulting from the perception that one's job fulfills or allows the fulfillment of one's important job values, providing and to the degree that those values are congruent with one's needs* (p. 1307). While Carson et al. (Carson et al. 1999) define job satisfaction as *an emotional construct reflecting an employee's positive feelings about a task situation*. Career satisfaction is defined by Carson et al. as *positive feelings towards one's line of work, which is therefore grounded in one's occupation rather than the organisation*.

It is generally considered that higher levels of job satisfaction will lead to more effective job performance and higher levels of productivity (Kirkman and Rosen, 1999; Igbaria et al. 1994; Locke, 1976).

Relationships between stress and satisfaction are complex. Lower levels of job and career satisfaction can be associated with higher levels of job related stress (Terry et al. 1993) (Prosser et al. 1997) while higher levels of job satisfaction have been identified as providing protection or a buffer against stress (Terry et al. 1995).

Stress

Stress is a term that is generally considered to have a negative connotation, but Sommerville and Langford (Sommerville and Langford, 1994) point out that *the absence of stress may lead to 'rust out' while too much stress may lead to 'burn out'*. Definitions of stress are many. Selye (Selye, New York) maintains *that all demands upon our adaptability do evoke the stress phenomenon* (p.7) while Holroyd and Lazarus (Holroyd and Lazarus, New York) consider that *psychological stress requires a judgement that environmental and/or internal demands tax or exceed the individual's resources for managing them* (p. 22). The majority of the literature relating to stress is concerned with sources of stress, appraisal of stressors and the resources of individuals to manage or cope with such stressors.

Sources of stress

Sources of work stress identified in the literature include job role, both role ambiguity and role conflict; poor support, clients, work overload, and underutilisation of skills (Prosser et al. 1997; Terry et al. 1993; Guppy and Rick, 1996).

Appraisal of stress

Appraisal involves the response of the individual to the source of stress and is considered to have two key aspects – the appraisal of what is at stake and *the evaluation of resources and options available for managing potential or actual harm* (Holroyd and Lazarus, New York). The latter response is the concept of coping and it is this aspect that has been identified as the most significant in determining the effect of stressors on individuals.

Coping resources and strategies

According to Lazarus and Folkman (Lazarus, R S and Folkman, S1984), coping strategies, or cognitive and behavioural responses of individuals used to reduce the adverse effects of stressful situations (Terry et al. 1995), can be categorised as either problem-focused or emotion-focused. Problem-focused coping strategies involve active confrontation of the problem and are generally considered to have a positive effect. Emotion-focused strategies such as escapism, avoidance and self-blame, typically involve a failure to deal with the problem and are generally considered to have a negative effect on stress response. Further research (Terry et al. 1995) suggests that problem-focused coping strategies will be more effective where the event is appraised as having high potential for control, but less effective for dealing with events assessed as having low potential for control.

Individuals have coping resources that are defined as the relatively stable dispositional and social characteristics they have available when faced with stressful life events (Terry et al. 1995). In research involving male and female public sector employees, Terry et al (1995) found evidence that generalised control beliefs and self-esteem had positive effect in responding to stress events.

Control-oriented coping strategies

The issue of control is a recurring theme. Holroyd and Lazarus (Holroyd and Lazarus, New York) suggest that an appraisal that a transaction contains the potential for harm and the potential for mastery or gain in association with a judgment that the outcome can be influenced by the individual, constitutes a challenge. In a challenge, appraisals of stakes and the sense of positive control are fused leading to a positive response to stress.

Mandler (1982, p.97) introduces the concept of mastery of stress, where mastery refers to the perception that the stress event(s) can be brought under our control. This colours our cognitive interpretation of events:

Without doubt, the sense of mastery in many cases reduces the deleterious effects of stress and alleviates the subjective sense of emotional disturbance. (Mandler, 1982)

Mandler (1982, p.98) also refers to the potential for activity itself as having the capacity to lower stress reactions.

According to Latack (1986), activities in the workplace that enable individuals to exercise control over their circumstances, such as planning, engaging with others or fostering positive cognitions, can be helpful strategies for managing stress. Koeske et al (1993) found in a study of coping styles of case managers, that *control-oriented coping strategies clearly acted as work stress buffers* (p. 319). In other words, effective copers used control-oriented strategies through which they were effectively buffered against the negative consequences of stress. Furthermore, Koeske et al found that *high control copers clearly did better as the setting became more stressful* p. 333.

Hardiness

Of particular interest in considering the ability of project personnel to cope with stress, is the concept of hardiness, which was found by Kobasa (1979) to be effective in the management of stress. Hardiness is described by Kobasa (1979, p. 169) (Kobasa et al. 1982) as comprising commitment, control and challenge.

The value of control and challenge in coping with stress has already been discussed. Those with a control disposition believe that they can influence events by planning and by taking action to manage and respond to circumstances. Inherent in the challenge disposition are openness and flexibility and a view that change is to be expected and that it is more likely to offer opportunities than threats. Similarly, commitment involves tendencies to become involved and to find meaning and purpose in that involvement. Such people will be active rather than passive and will prefer active engagement to avoidance (Kobasa et al. 1982).

SOURCES OF STRESS AND SATISFACTION IN THE PROJECTISED ORGANISATION

Project work, in an environment where managements are requiring results to be produced faster, with fewer resources in an increasingly complex environment, would seem, at first glance, to be a source of stress and burn out for those involved. Looking at the nature of work-based stress and satisfaction there are strong indications that the very nature of project work may foster approaches that inherently enhance the ability of project personnel to cope effectively with stress.

Project management is a process that is intended to exercise control over time and resources in order to achieve specific outcomes. The dominant concept of project management contains within it key factors in job satisfaction – namely goal orientation and achievement; and a key factor in effective stress management – belief in the ability to exercise control over events.

On this basis, it is tempting to propose that those involved in project management are well placed to cope with the stresses presented by an increasingly complex business environment. Hardiness, described above as a disposition towards commitment, challenge and control, could almost be seen as a description of the project management role. As such, it could be expected that those involved in projects, by choice, would either have or would develop hardiness and that this would enhance their ability to deal effectively with work-based stress.

The world of work implodes

Hirschhorn (Hirschhorn, Larry 1995) considers what he characterises as the *postindustrial milieu* as *particularly stressful because it progressively integrates a once fragmented division of labour, forcing workers to take account of many more facts, people and claims ... it becomes harder to ritualise work and reduce it to a set of regular procedures and formulas* (p.6). This results in two complementary challenges: *Work becomes more situational and less routine, and people must integrate an increasingly diverse set of facts, interests, and claims* (p. 6). Hirschhorn refers to this as the implosion of the world of work causing the risks of working to grow with an associated increase in stress and anxiety (p.7). Those who respond by retreating from this complex workplace or who are forced into increasing segmentation of their work, are seen as experiencing greater levels of anxiety that are strongly associated with negative stress. The more positive and healthy response is experienced by those who are able to restore coherence through completing whole tasks and *filling out the implicit structure or 'gestalt' of the work* (p.8).

Project management could be seen as an approach to work that responds directly to the demands of Hirschhorn's *postindustrial milieu*. Projects are essentially *whole tasks*. They are by definition unique and involve the bringing together of multiple and diverse resources. Project managers recognise that they will rarely have direct authority commensurate with their responsibility and accountability and that they must arbitrate between competing *facts, interests and claims*. A world of projects therefore appears to have inherent pre-conditions for high levels of job satisfaction would encourage effective strategies for coping with stress. On the one hand it offers opportunities to be involved in completion of 'whole tasks' (job satisfaction) and on the other, project personnel have an expectation, as well as the approach, tools and techniques, to exercise control over events (effective control-oriented coping strategies).

METHODOLOGY

In order to explore the proposition that project based work offers conditions that foster high levels of job satisfaction and low levels of negative stress, 323 project personnel from a range of industries were asked to rate their level of satisfaction or dissatisfaction on a five point scale. Analysis of the resulting data lead to the development of scales for:

Satisfaction

Personal Satisfaction – the degree of satisfaction or dissatisfaction with balance between current job role and personal and family needs

Career Satisfaction – the degree of satisfaction or dissatisfaction with contribution of the current job role and work environment to achievement of career aspirations

Satisfaction with Management Support – the degree of satisfaction or dissatisfaction with management style and support of superiors and the support provided by the organisational culture

Congruence of Current Job Role with Needs – the degree of balance between current job role, personal, family, career and professional development needs

Overall Job Satisfaction – a composite scale including levels of personal and career related satisfaction as well as satisfaction with management support

Stress

Work-related Stress – the degree of satisfaction or dissatisfaction with the level of work-related stressors including demands of time, travel or heavy workload

Contextual issues

Levels of stress and satisfaction on these scales were examined to identify whether there were any differences as a result of level of project management competence, or job role.

ANALYSIS

Profile of the sample

Data for this study is drawn from questionnaires completed by 388 project personnel. Of these, there are 323 valid responses relating to job satisfaction and 288 responses relating to work related stress. Participation in the study was supported by employing organisations. In the sample 74% were males and 26% female, and 48% of the sample were between 40 and 49 years of age. Number of years project management experience is shown in Exhibit 1. And 54% of the sample have a Bachelor's Degree or higher. Three geographic regions are represented in the sample: Australia (59%), North America (18%) and the United Kingdom (23%) and three industry sectors: Engineering and Construction (32%), IS/IT and Telecommunications (44%) and Business Services (24%).

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		Valid Percent
Valid	0 - 5 yrs PM exp	19.5%
	6 - 10 yrs PM exp	29.6%
	11 - 15 yrs PM exp	17.9%
	16 - 20 yrs PM exp	11.7%
	Over 20 yrs PM exp	21.4%
	Total	100.0%

Exhibit 1: Number of Years PM Experience

Overall Job Satisfaction

Analysis of levels of Overall Job Satisfaction indicates that over 75% of the sample are satisfied or very satisfied with the level of job satisfaction they experience in their current job role. The finding supports the proposition that project personnel are likely to experience job satisfaction due to characteristics of project management job roles.

	Personal Satisfaction	Satisfaction with Management Support	Congruence of Job with Needs	Career Satisfaction	Overall Job Satisfaction
Very dissatisfied	3.1%	2.2%	0.3%	1.9%	0.0%
Dissatisfied	9.0%	12.4%	7.1%	6.2%	5.0%
Neither satisfied or dissatisfied	20.2%	23.8%	18.9%	15.6%	16.7%
Satisfied	49.2%	43.0%	48.3%	45.2%	51.1%
Very satisfied	18.4%	18.6%	25.4%	31.2%	27.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Exhibit 2: Components of Job Satisfaction

Although all elements of job satisfaction are high for this sample of project personnel, Career Satisfaction is highest, indicating that career aspirations are generally being met and supported for those in project management roles. As indicated in Exhibit 2, over 75% of the sample are satisfied or very satisfied with career prospects. Over 70% of the sample experience are satisfied with the congruence between their job role and their needs. While balance between the job role and personal and family needs (Personal Satisfaction) and satisfaction with the support provided by the management style of superiors and by the organisational culture (Satisfaction with Management Support) are still over 60%, they are accompanied by higher levels of dissatisfaction (over 12%) than are reported for Career Satisfaction and Congruence of Job with Needs (less than 10%). This supports the definition of job satisfaction given earlier, as an *emotional construct reflecting an employee's positive feelings about a task situation...grounded more in one's occupation rather than the organisation* (Carson et al. 1999).

Work-Related Stress

Exhibit 3 shows that over 50% of the sample are satisfied with their current level of work-related stress including demands of time, travel and heavy workload while 25% are dissatisfied. There are strong positive correlations between work-related stress and overall job satisfaction, suggesting that those who are most satisfied with their job are also most likely to be more satisfied with stress levels. At the other end of the scale those reporting lower levels of job satisfaction are more likely to report higher levels of dissatisfaction with levels of stress. As indicated earlier, this relationship is more complex than it may seem on the surface. Job satisfaction has been found to be an effective buffer against stress (Terry et al. 1995) so that those reporting high levels of job satisfaction will be more able to cope effectively with high levels of stress.

Work Related Stress	Valid Percent
Very dissatisfied with level of stress	9.4%
Dissatisfied with level of stress	16.0%
Neither satisfied or dissatisfied with level of stress	24.0%
Satisfied with level of stress	37.8%
Very satisfied with level of stress	12.8%
	100%

Exhibit 3: work-related Stress

Competence relative to work-related stress and overall job satisfaction

The effect of competence upon work-related stress is dependent a complex set of factors. On the one hand, those with high levels of competence who consider their skills to be under-utilised or unappreciated, may experience higher levels of negative stress (Terry et al. 1993). Alternatively, those with higher levels of competence, particularly in project management, would feel better equipped to deal with the job, and could be expected to have more confidence in their mastery of the situation and their ability to use effectively use control-oriented strategies (Holroyd and Lazarus, New York)p.23); (Mandler, 1982).

Results of the analysis of this sample provide no clear support for a relationship between work-related stress and levels of project management competence. In Exhibit 4, below, the competency levels indicated relate to the Australian National Competency Standards for Project Management (Australian Institute of Project Management(Sponsor), 1996) and can be interpreted as follows:

- Level 4: Team member or specialist
- Level 5: Manager of relatively well-defined project
- Level 6: Manager of multiple or complex projects

These levels relate to the Australian Qualifications Framework which has eight levels, 1 being entry level, and 8 being the highest level of management.

The distribution of satisfaction and dissatisfaction with levels of stress is similar for the Levels 4 and 5, which have comparable sample sizes. The apparently higher level of satisfaction with stress levels at Level 6 must be disregarded due to the very small sample size. Perhaps most interesting is the failure of anyone at Competency Level 4 to report that they were Very Satisfied with the level of stress experienced.

	Competency Levels		
	Level 4	Level 5	Level 6
N	137	143	8
Very dissatisfied with level of stress	16.7%	5.6%	12.5%
Dissatisfied with level of stress	8.3%	16.1%	12.5%
Neither satisfied nor dissatisfied with level of stress	25.0%	25.2%	12.5%
Satisfied with level of stress	50.0%	37.1%	37.5%
Very satisfied with level of stress	0.0%	16.1%	25.0%
Total	100.0%	100.0%	100.0%

Exhibit 4: work-related Stress by Project Management Competency Level

Exhibit 5 below shows that consideration of Overall Job Satisfaction by competency level does give some support for higher levels of satisfaction at Competency Level 5, but remains inclusive and the sample size at Competency Level 6 is again too small for serious consideration.

	Competency Levels		
	Level 4	Level 5	Level 6
N	163	151	9
Very dissatisfied with job	0.0%	0.0%	0.0%
Dissatisfied with job	6.13%	3.3%	11.1%
Neither satisfied nor dissatisfied with job	19.63%	14.6%	0.0%
Satisfied with job	52.76%	49.7%	44.4%
Very satisfied with job	21.47%	32.5%	44.4%
Total	100.0%	100.0%	100.0%

Exhibit 5: Overall Job Satisfaction by Project Management Competency Level

Project Management Job Role relative to work-related stress and overall job satisfaction

Higher levels of perceived control are most likely to be associated with more senior job roles. As higher levels of perceived control have been found to act as stress buffers, it could be expected that those in more senior project management roles would have both more perceived and actual control over their circumstances and would therefore report higher satisfaction with levels of stress (Guppy and Rick, 1996). The data do not support this proposition. In fact, Exhibit 6 shows that proportionately more Team Members report both higher satisfaction with levels of stress and lower dissatisfaction than Project Managers or Project / Program Directors.

	PM Job Roles		
	Team Member	Project Manager	Project / Program Director
N	62	169	43
Very dissatisfied level of stress	6.5%	11.2%	9.3%
Dissatisfied level of stress	6.5%	17.2%	27.9%
Neither satisfied nor dissatisfied level of stress	27.4%	24.3%	14.0%
Satisfied with level of stress	51.6%	32.0%	41.9%
Very satisfied level of stress	8.1%	15.4%	7.0%
Total	100.0%	100.0%	100.0%

Exhibit 6: work-related Stress by PM Job Role

In a study of 675 white-collar public sector employees, Guppy and Rick (1996, p. 154) found that higher levels of job satisfaction were reported by employees in higher grades. The results for Overall Job Satisfaction in the Project Management Role do not support these findings (Exhibit 7). It is possible that the results could be masked by the significant variation in importance and definition of job roles in different organisations.

	PM Job Roles		
	Team Member	Project Manager	Project / Program Director
N	72	190	47
Very dissatisfied with job	0.0%	0.0%	0.0%
Dissatisfied with job	5.6%	5.3%	4.3%
Neither satisfied nor dissatisfied with job	16.7%	17.9%	14.9%
Satisfied with job	50.0%	53.2%	44.7%
Very satisfied with job	27.8%	23.7%	36.2%
Total	100.0%	100.0%	100.0%

Exhibit 7: Overall Job Satisfaction by PM Job Role

CONCLUSIONS

Research into work-related stress and satisfaction suggests that control-oriented strategies for management of stress will be most effective and that a disposition to control, challenge and commitment, termed “hardiness”, will assist people in dealing with stressful life events. Job satisfaction is derived from a sense of achievement, satisfaction of career aspirations, management and organisational support, congruence of job values and roles with needs and again, perceived control.

Project management, by its very nature appears to present a number of these characteristics. It has as a basic premise the belief in control; change is central and acceptable; it provides opportunities for active involvement and provides those involved with opportunities to complete ‘whole tasks’. In other words, project management, however stressful it may appear to be, at the same time provides opportunities for job satisfaction and an approach, tools and techniques for control which research indicates is the most successful approach to stress management.

The high levels of job satisfaction and satisfaction with levels of experienced work-related stress found in amongst a sample of 323 globally representative project managers supports the view that those who choose careers in project management are well placed to deal with an increasingly complex and demanding workplace.

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