> *Still the barrage keeps on.*
> *Still the air is vibrant with the paralysing roar of the crashing detonations of exploding shells.*
>
> *The unbelievable is happening not two feet above our cowering heads. One of our officers is walking upright along the top of our parapet amongst this dreadful barrage. He keeps looking into the trench as he goes along. 'Can't hurt you unless they hit you,' he keeps calling to the men as he walks the tight-rope to hell.*
>
> *Where have I heard that before? Yes, I remember; this is the officer who had us on the burying party and who kept us out in the open until the sniper got Farmer. 'Can't hurt you unless he hits you.' Now I remember it well. Then I thought this officer was an absolute fool. Now I know him for an out and out hero, a hero if ever there was one.*
>
> *Up and down the line he goes.*
>
> *'Fatalism?' Snow asks.*
>
> *The three of us shake our heads. It's not fatalism. The officer is practising fear control. He is setting a wonderful example to us all, for if a man can walk out there and live, so can we, and we begin to feel we're in comparative safety here in the trench. His brave example does us good. We feel better. Men begin to shout to each other along the trench. The tension is breaking...*

E. P. F. Lynch, Somme mud:
The war experiences of an Australian infantryman in France 1916-1919, 2006, p.210

Leadership:
the key to meaning and resilience on deployment?

> *The most negative experience for me? The usual stuff: mass graves, death and destruction, sick and injured, run-ins with RPA troops. The general day-to-day of my job.*

Australian Army Corporal, reflecting on his experience with UNAMIR II in Rwanda, 1994-95, Human Dimension of Operations survey comment

By Colonel Peter Murphy & Major Gerard Fogarty

Service personnel can be exposed to a range of pressures and threats during deployment. However, although some military personnel suffer detrimental physical and mental health outcomes following such exposures, a substantial majority shows remarkable resilience by remaining psychologically robust, both during and after deployment. Another consistent finding in the literature has been that, in the main, routine occupational stressors appear to cause more concern to deployed Service personnel than potentially traumatic stressors do (e.g., Gifford, Jackson, & DeShazo, 1993).

The purpose of this article is to examine factors that may account for mental toughness during deployment. Factors that buffer the effects of deployment stressors were examined in an ARA unit deployed to East Timor during OP WARDEN. If protective and adaptive factors – the 'pathways to resilience' (Bartone, 2006) – can be clearly identified and understood, it is possible that effective coping can be enhanced for even those most vulnerable to the strain of

deployment. The factors studied were cohesion, leadership, morale, and meaning.

Buffers of the Stressor-Strain Relationship

> *Back in Kigali (shortly after the Kibeho massacre), the first thing I did was go and pump weights for hours — I felt so wound up. It was like ants were crawling all over me...*

Milan Nikolic, ARA Medic, UNAMIR
Forged by War: Australian Veterans in Combat and Back Home,
2005, p. 94

Efforts aimed at reducing strain (the adverse outcomes of stress) require either a reduction in the level or frequency of stressors, or an increase in factors that enhance coping. Mission-specific stressors such as threats to life and limb are often unpredictable and uncontrollable. In addition, mission accomplishment normally requires soldiers to endure a range of unavoidable stressors such as difficult living conditions, environmental hazards, and restrictive safety regulations. Therefore, many deployment stressors are simply beyond individual and organisational control.

Conversely, it is feasible to reduce strain by attempting actively to influence factors that buffer – or reduce – the impact of these unavoidable stressors. From a command perspective, factors that reduce the impact of stressors (causes of stress) are potentially the most useful because they are the most amenable to some sort of intervention.

Examples of buffering factors include perceptions of organisational support, task satisfaction, confidence in equipment, and individual morale. Many buffers are essentially resources, and in the military context, these include effective leadership, realistic training, high levels of physical fitness, ample recreational assets, and aspects of unit climate such as strong group cohesion.

Cohesion

A factor often found to attenuate stress is social support. In the military context, social support normally is referred to as cohesion. There are a number of different types or dimensions of cohesion, distinguished by directionality and function (Griffith, 1988). Direction-of-cohesion refers to either vertical cohesion (superior-subordinate relations) or horizontal cohesion (peer relations). The functions of cohesion normally include task-focussed cohesion (bonding in order to get a

task done) and social cohesion (interpersonal relations that are of themselves important).

It is widely accepted that cohesion in military groups is beneficial to well-being and performance. The quality of the social relations within a military unit is presumed to determine the strength of the buffering capacity against operational stressors. There is considerable evidence to support these assumptions. For example, studies of U.S. combat soldiers in WWII reported group cohesion as the single most important factor in reducing stress outcomes such as psychiatric casualties (Stouffer et al., 1949).

A study of Israeli combat veterans concluded that group cohesiveness was a major stress-buffering variable (Milgram, Orenstein, & Zafrir, 1989). The authors believed that a cohesive military unit is especially effective in stressful situations "because support is forthcoming from people with similar situational experiences and heightened empathic understanding" (p. 196).

Cohesion also has been demonstrated to promote well-being in garrison and contemporary deployment environments. In a study of over 3,400 U.S. veterans from the peacekeeping mission to Somalia, a variable called 'general military pride and cohesion' was the most powerful protective factor of postdeployment psychological status (Orsillo, Roemer, Litz, Ehlich, & Friedman, 1998). Among Norwegian peacekeepers deployed to the Lebanon, strong group identification, along with effective leadership and strong motivation, increased soldier tolerance of stress (Weisæth & Sund, 1982).

More recently, both task and social cohesion were found to be moderators of strain in Canadian peacekeepers (Farley, 2002). Moldjord, Fossum, and Holen (2003) cited several studies of peacekeepers that found social support and comradeship were relevant to coping with distress. In general, individuals exposed to stressful incidents were more likely to recover quickly when they felt their emotional and behavioural reactions were understood and supported by their peers.

Leadership

Strong cohesion in a military unit is thought to be associated with collective confidence, mutual trust, and respect between soldiers and officers of all ranks. Both cohesion and leadership can be regarded as forms of social support. Therefore, it is not surprising that a strong relationship between cohesion and leadership should exist.

The vertical dimension of cohesion is thought to be founded on member confidence and trust in the fairness and competence of leaders, and the belief that leaders are genuinely concerned about their subordinates. For their part, leaders need to recognise the importance of developing healthy and supportive social environments within military units that foster strong and positive group identities (Siebold, 2006).

Human factors such as morale, cohesion, and confidence in leadership tend to correlate highly with each other – when one factor is strong in a unit, the others are as well. Siebold (2006) was confident enough in these relationships to suggest that researchers should expect correlations of about r = .6 between horizontal cohesion and performance in units with effective leadership, and correlations "much lower and not significant under less effective leadership" (p. 197).

There is evidence of the buffering influence of effective leadership on strain in deployment contexts. One fascinating outcome of a series of studies examining the buffering effect of leadership among U.S. peacekeeping troops in Haiti was an interaction between low task significance and poor leadership climate that resulted in high levels of hostility. This finding was interpreted as showing that soldiers could accept being deployed and having low task significance as long as the unit leadership was strong (Bliese & Britt, 2001).

An alternative interpretation of the above finding is that the interaction demonstrated the critical role of leadership in managing the meaning of the mission. This reinterpretation is supported by a finding that U.S. troops in Haiti who were regularly briefed about the accomplishments of the operation were more positive about the operation itself and their contributions to the success of the operation (Halverson, Bliese, Moore, & Castro, 1995). It would appear that effective leaders ensured that soldiers understood the broader importance and significance of their tasks – no matter how inherently mundane.

The management of meaning

> *With seven weeks down and ten or eleven ahead, the glamour and panache of the overseas deployment was worn off somewhat. We have a long haul to keep motivation going and troops interested.*

Major Blumer, Company Commander, 1 RAR Group, Somalia
Cited in Bob Breen, *A little bit of hope: Australian Force – Somalia*, 1998

THE POSITIVE ASPECTS OF DEPLOYMENT

Positive experiences during an operation should influence the soldier's appraisal of the deployment, i.e., they should foster personal meaning. This sense of meaning, in turn, should buffer the impact of adverse experiences by enhancing soldier well-being and resilience. The Positive Aspects of Deployment Scale uses a 5-point response scale that distinguishes different levels of satisfaction/enjoyment from "not applicable" to "a great deal." The scale comprises 30 items. The scale has five factors or conceptual dimensions that have been labelled:

1. Professional rewards & development
2. Personal rewards
3. Constructive contact with locals (Humanitarianism)
4. Novel experiences
5. Personal development

The table below shows the top 10 positive experiences (using mean scores for each item) for two ARA contingents: one in East Timor in 2000 (sample size of 428) and one in the Middle East in 2008 (sample size of 495).

Table 1. Top 10 Rankings of Positive Aspects of Deployment for two ARA Contingents

OP WARDEN		OP CATALYST	
Ranks item	Associated factor*	Ranks item	Associated factor*
Getting mail from home	2	Allowances\financial incentives	2
Allowances\financial incentives	2	Leave breaks / ROCL	2
Thoughts of returning home	2	Getting mail from home	2
Communication with home	2	Thoughts of returning home	2
The professional/operational experience	1	Communication with home	2
Doing a real job rather than just training	1	The professional/operational experience	1
New sights	4	Doing a real job rather than just training	1
Putting training into practice	1	Pride in being part of ADF	4
Leave breaks / ROCL	2	Making new friendships	4
Contributing to country here	3	Putting training into practice	1

* Note: See list above for factor labels.

The two contingents share 8 items in their top 10. Items from the 'Personal Rewards' factor are clearly dominant, followed by 'Professional Rewards & Development' items. Two other factors are not well represented; and items from the 'Personal Development' factor do not make the top 10 at all in either contingent. An increase in the relative influence of items from the 'Personal Development' and 'Constructive Contact with Locals' subscales is likely to foster a sense of meaning. This paper shows that secondary outcomes of increased personal meaning are enhanced cohesion and morale, and reduced strain. Food for command thought?

In recent years, research into stress and coping has broadened to include the search for meaning in stressful encounters. In a similar way, a growing theme in research examining the human dimensions of military deployment has been the importance of the meaning of the mission to soldier satisfaction, performance, and post-deployment adjustment. Given the challenging and potentially stressful nature of these operations, it is important to understand how members have made sense of their mission and assigned meaning to their participation.

The concept of meaning. Human behaviour is regarded as being an outcome of a sensemaking process. This process has several components such as sensing or recognition, interpretation, and the attachment of meaning. Humans behave in a manner consistent with their mental representations of the situations that engage them. The meaning that an individual assigns to a situation is often the most influential situational factor affecting subsequent behaviour.

Baumeister (1991) postulated that meaning is derived from the achievement of four basic needs. These needs were: (1) a sense of purpose, in that intrinsic goals are achieved, (2) required behaviours are compatible with one's values, i.e., that one's actions are right and justified, (3) a degree of self-confidence in ability so that the individual perceives some control over the event, and (4) a degree of self-worth is gained, so that individuals feel that they and their actions are of some value.

Clearly, the characteristics of many military operations are such that Baumeister's four basic needs are unlikely to be attained. For example, rules of engagement may prevent soldiers from taking their preferred action (intrinsic motivation unfulfilled; lack of self-efficacy) and soldiers may be tasked to undertake duties that conflict with personal values. Further, the situations that soldiers are faced with on deployment are notoriously chaotic and uncontrollable, such as widespread destruction and suffering.

Meaning in military duties. Components of meaning often thought to explain military behaviour include patriotism, ideology, and politics. Military pride has been found to predict psychological health in military personnel after a stressful deployment (Orsillo et al., 1998). However, Dinter (1985), discussing the protective layers that prevent psychological breakdown in the face of combat, suggested that factors such as patriotism and ideology were the first layers to be peeled away. Other factors, particularly cohesion in the immediate work team, have been found to be much more important and persistent as combat motivators (Marshall, 1947). Clearly, soldiers need some justification, some source of meaning, to carry out duties that few would do willingly in other circumstances.

Franke (2003) argued that the decisions soldiers make and how they perform during a mission will depend to a large extent on their understanding of the mission: "If the mission makes sense and confirms their self-conceptions, if members of their most important reference groups (family, friends, company, platoon, etc) share this meaning, and if society at large supports the operation, motivation and performance will be high" (p.39). Mental frameworks, social identity, and group norms and values will influence what meaning is derived from or is projected upon the deployment. This sense of meaning, in turn, likely will influence attitudes, motivation, morale, and behavioural choices.

Meaning on peacekeeping missions. In many nations, soldiers have derived a sense of meaning from the traditional combat-oriented warrior identity. The unique nature of many Peace Support Operations has called into question what it means to be a soldier. Undertaking non-combat roles such as peacekeeping (as opposed to peace enforcement), police actions (such as the eviction of illegal settlers), and border protection tasks has challenged the accepted roles of military personnel in some nations. In the United States and Israel, there are particularly strong conventions about how the military should be utilised (Gal, 2006).

For military personnel engaged in traditional peacekeeping duties such as observer/monitor, adverse psychological outcomes have tended to be associated with the experience of boredom, isolation, frustration with the constraints placed on their ability to take action, and disillusionment with the lack of tangible outcomes or clear success (Orsillo et al., 1998).

Britt (2003) adopted four factors to explain the determinants of meaning during peacekeeping operations. The first of these factors was the individual soldier's attitudes towards the operation, which have the potential to help an individual make sense of the environment, allow for self-expression, and provide a sense of importance to various ongoing activities.

A second factor was the relevance of the mission to one's identity, job, and career. Making sense of participation in such an operation was more likely when (1) it was consistent with one's self-identity and (2) one's role was considered relevant to job and career.

The military leadership's views of the mission constituted the third factor. Soldiers were more likely to see the personal significance of a peacekeeping operation when their role was made clear and constantly reinforced by the leadership, and when leaders communicated successes to the soldier. Such leadership communication supported three of Baumeister's needs (discussed earlier) that underpinned meaning: sense of purpose, self-efficacy, and self-worth.

Britt's fourth contributing factor to the construction of meaning was the prevailing attitude of the public toward the mission. It was postulated that positive appraisals of peacekeeping experiences would be linked in part to support from and understanding by the public at home.

Of course, the deployment experience – whether for warlike operations or peace support missions – seldom matches expectations. Personnel who are unable to adjust their pre-deployment expectations in light of operational realities are more likely to experience adjustment problems. Gifford, Jackson, and DeShazo (1993) reported that many American soldiers in Somalia began to doubt the value of their mission when hostility from the local populace grew and bandits were not disarmed because of inconsistent UN policies. Furthermore, many peacekeepers questioned whether any improvements made

by Coalition forces would endure once the UN forces left the country.

Unlike the initial U.S. contingents in Somalia, later contingents reported their major stressor to be the ambiguous nature of the mission. As the mission became more complex and conflicted, and as Coalition casualties mounted, many soldiers found the dual roles of combatant and humanitarian support provider were very difficult to integrate at the emotional level.

Peacekeeping duties are thought to be associated with increased interaction with the local civilian population. In turn, such contact with a 'grateful populous' should increase the satisfaction of peacekeeping personnel and provide commanders with a store of positive experiences with which to justify and demonstrate the meaning of the mission.

Some evidence, however, has shown that contact with the local population can be destructive to satisfaction, morale and a sense of meaning. In one study, 71 per cent of U.S. soldiers reported they had never experienced a positive interaction with Somalis during the course of their peacekeeping mission. Many soldiers admitted that they had developed negative feelings towards Somalis in general and towards the mission itself. Only 37 per cent of respondents agreed or strongly agreed with the survey item: "I believe in the value of my mission in Somalia" (Gifford et al., 1993).

Meaning as a buffer of stress. A common assumption is that the assignment of meaning to one's participation in a peacekeeping mission will predict the degree to which personal benefits were derived from the deployment experience. There is growing evidence that this assumption is reasonably well founded. In a longitudinal study of military medical personnel supporting a peacekeeping mission in the former Yugoslavia, Bartone, Adler and Vaitkus (1998) concluded that belief in the mission acted as a stress buffer, presumably by enhancing soldiers' resilience and adaptation during deployment.

Positive aspects of deployment. Most studies that have examined the concept of meaning appear to use reports of beneficial aspects of deployment as a substitute for meaning (e.g., Britt, Adler, & Bartone, 2001). It makes sense that positive experiences during deployment would bolster meaning for the individual. Such experiences should also develop a sense of individual efficacy (competence) – and group efficacy – in the face of challenge and threat. Positive experiences could be regarded as a resource that bolsters a sense of personal meaning and self-confidence and buffers the impact of deployment stressors.

Potentially positive aspects of deployment were presumed to include putting military training into practice, learning new skills, forming relationships with people from different cultures, and personal satisfaction in providing support to the local country. The scale used to measure positive aspects of deployment in the study reported here included 30 items (see page 95).

Meaning and postdeployment adjustment. Successful transition following operational deployment has been strongly linked to the soldier's appraisal of the deployment. In a study of peacekeepers, Britt, Adler, and Bartone (2001) found that perceived meaning during deployment was strongly predictive of reported psychological benefits following homecoming. Soldiers at mid-deployment who felt personally engaged, and considered the mission both important and relevant, were much more likely to report benefits from participating in the deployment.

Interestingly, the more that soldiers reported such events as witnessing destruction and having contact with locals, the more likely they were to report having derived benefits from the deployment. The authors

surmised that the experience of such events helped to place the deployment in a meaningful context.

Veterans who recount positive effects of their military service are less likely to be affected by the combat stressors they have encountered (Aldwin, Levenson, & Spiro, 1994). These positive personal outcomes included increased self-discipline, recognition of one's ability to cope with adversity, improved resilience, and the reassessment and/or augmentation of life values and one's sense of purpose in life.

In reviews of the benefits of participation in peacekeeping missions, both Britt (2003) and Thompson & Pastò (2003) noted that numerous studies have cited deployment-specific positive outcomes, including a belief in the value of the
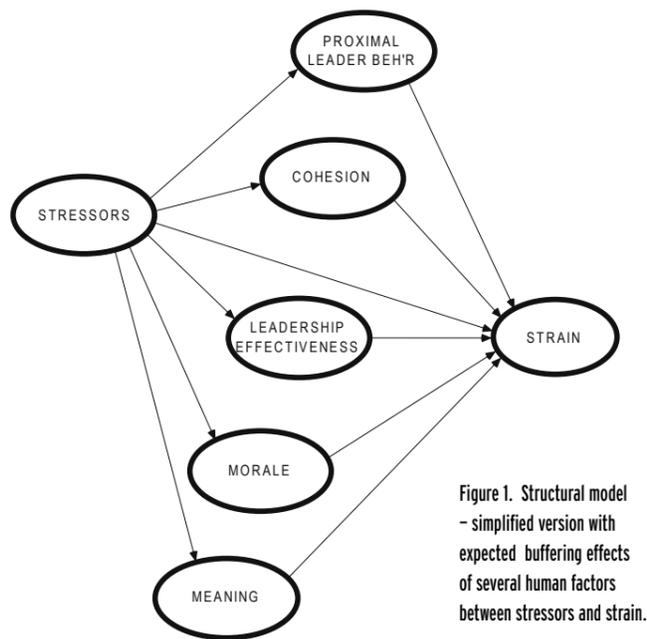

Figure 1. Structural model – simplified version with expected buffering effects of several human factors between stressors and strain.

deployment, a sense of having contributed to humanitarian causes, expanded political understanding, enhanced sense of self-worth, improved sense of life balance, and an appreciation of cross-cultural contact.

All military personnel – on some level – will seek to make sense of, and derive meaning from, their experience of deployment. Of course, a key component of a sense of meaning during deployment is likely to stem from morale – i.e. a sense of satisfaction and commitment.

Morale

Most studies of morale have concentrated on the determinants of morale and the expected motivational and performance outcomes of strong morale. With respect to morale and its relationship with stress outcomes, Stouffer and his colleagues (1949) found strong moderating relationships between morale and strain in their landmark studies of the U.S. Army during WWII. More recent field research conducted by Farley (1995) with Canadian military personnel deployed as peacekeepers confirmed a strong relationship between morale and strain. Soldiers with poor morale

were more likely to show signs of illness than personnel with high levels of reported morale. This relationship, often intuitively recognised, has obvious ramifications for commanders who are trying to maximise operational effectiveness and maintain the well-being of subordinates.

Psychological resilience

The concept of psychological resilience is attracting increasing interest in the military. This attention is perhaps an indication that there is a desire to understand better how most individuals successfully cope with acute and chronic stress rather than a morbid fascination with cases of poor adjustment. The broadening of research to focus more on adaptive responses and outcomes to stress and trauma should lead to a more balanced and comprehensive understanding of how individuals adjust to challenging life events.

Coping refers to the thoughts and behaviours used to manage the demands of situations appraised as stressful. In contrast, psychological resilience refers to the ability of a person to adapt to changing and

potentially difficult circumstances and to recover previous functioning and psychological status – and even to experience personal growth as a result of this adaptation. Coping is an active process, whereas resilience is an outcome of successful coping and adaptation.

One of the few studies that have investigated resilience in military populations was a study of U.S. peacekeepers by Dolan and Adler (2006). The authors reported that military 'hardiness' (resilience) moderated the impact of deployment stressors on depression after deployment.

In the research reported here, psychological resilience was used to denote the overall outcomes of the stressor-strain transactional process. Rather than discussing trauma and

maladjustment, a resilience framework was utilised to discuss the positive outcomes evident in the data.

The current study

A model examining the potential buffering variables between stressors and strain during deployment was examined. These variables were cohesion, meaning, morale, and leadership. A sample of 428 ARA personnel deployed in East Timor during OP WARDEN was used.

In terms of the demographics of the sample, Privates were moderately under-represented (49.3 per cent compared with an expected 60 per cent), and consequently the other three rank groupings (JNCO, SNCO/WO, Officers) were each slightly over-represented. There were considerably more married

members than single members, perhaps because of the small percentage of participants (15.4 per cent) in the youngest (18–21 years) age category. Over half the sample (62.4 per cent) had previous operational experience. Most respondents had completed Year 12 education (74.2 per cent). Women were under-represented (3.7 per cent of sample) when compared to their 13 per cent representation in the Army as a whole at the time of survey administration.

Resilience model

A model was developed to examine the relationships between stressors, strain, and the human factors postulated to have a buffering effect on stress. Leadership was represented by two factors, Leadership Effectiveness and Proximal

Leader Behaviour, drawn from the Unit Climate Profile (UCP) measure. Cohesion and Morale variables were also drawn from the UCP. The Meaning latent variable was derived from the Positive Aspects of Deployment Scale. The initial model (a simplified version without observed variables) is shown as **Figure 1**.

A simplified diagram of the significant pathways between latent variables in the re-specified model is shown in **Figure 2**. The model accounted for 76 per cent of variance in Strain, as well as 83 per cent of variance in Morale.

Discussion. The model depicted in **Figure 2** made sense. All human factors contributed in some way to a buffering effect on the relationship between stressors and strain. Proximal Leader Behaviour moderated the impact of stressors, and influenced the effectiveness of the wider leadership in the unit. Leadership Effectiveness proved to be an important mediating factor, not so much in directly reducing the influence of stressors, but by fostering Morale both directly and indirectly through the bolstering of Cohesion. (The Leadership Effectiveness variable had a focus on more senior levels of leadership in the unit, as distinct from the behaviour of the immediate leader.) A separate pathway indicated that a sense of meaning also fostered Cohesion, which in turn fostered Morale. Morale was a strong buffer of Strain.

The 'Good to Go' article in the Readiness section of this publication discussed a finding that Proximal Leadership was more important than senior leadership during the predeployment stage, but that during deployment, the influence of more senior levels of leadership increased. The results here are consistent with these earlier findings.

The increased importance of senior levels of leadership during deployment may be related to
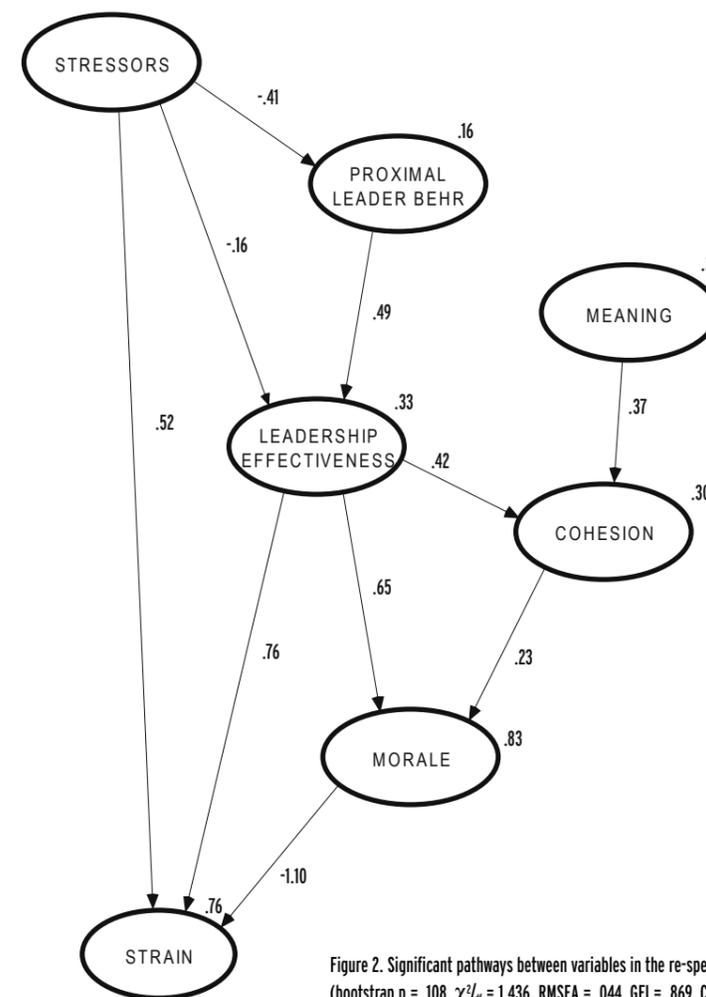

Figure 2. Significant pathways between variables in the re-specified model (bootstrap p = .108, χ^2_{df} = 1.436, RMSEA = .044, GFI = .869, CFI = .939).

COMMAND

the increased transparency of command decision-making and the importance of such decisions to operational success. In addition, it is plausible that the proximal leader – in most cases a junior NCO – may not have the skills or authority to influence the impact of stressors. Proximal leaders may be close to the source of many stressors, particularly workplace and operational stressors, so that their responses are focussed on immediate action, as opposed to moderating longer-term stress responses.

From a multi-level perspective, the Leadership Effectiveness variable represented the organisational level, while Morale and Meaning reflected the individual level. The construct of Cohesion was postulated to fill the gap between the individual level and the higher organisational level by representing social support at the level of the work group. For this deployment sample, the Cohesion variable did play such a role between leadership and morale.

Cohesion was the only variable influenced by the Meaning variable. This result may be explained by a sense of meaning being constructed at the level of the team and therefore having a strong social component. The finding that Cohesion was significantly influenced by both Leadership Effectiveness and Meaning is consistent with theories of cohesion that have suggested this construct has dual task- and social-related facets. Leadership is likely to foster task-related aspects of teamwork, whereas a sense of personal meaning may be rooted in the social interactions of the deployed work team.

Morale proved to be very important in terms of moderating the stressor-strain pathway. The model suggests that morale is the result of the integration or synergy of other human dimensions constructs, notably leadership and cohesion. Morale appears to function as a later step in the pathway of human dimensions factors. This finding has practical significance for commanders (and military psychologists) because it suggests that morale could be the most useful single, global measure of unit climate.

Conclusion

Leadership is generally presumed to play a critical role in the prevention and management of stress on operations. The results of this study support this notion, and more specifically, reveal that leadership both buffers the immediate impact of stressors, and also fosters cohesion and morale, thereby reducing strain.

The management of personal meaning for deployed personnel is increasingly recognised as an important leadership task. There was not a direct, significant pathway between the Meaning variables and either of the leadership variables in the structural model. However, the finding that personal meaning (derived from positive deployment experiences) significantly bolsters cohesion gives scientific credibility to the assertion that a meaningful deployment experience can contribute to the fostering of resilience.

The lack of a relationship between meaning and leadership behaviour in this study may simply reflect that at the time this data was gathered, there was no conscious – or subconscious – linkage between these two factors in the unit under study. Commanders may not have considered that one of their

roles was to actively foster a sense of meaning in their troops during deployment. Certainly the concept of the 'management of meaning' is a relatively recent addition to the scientific literature. Future research on the concept of meaning should consider additional measures of meaning, and revisit the relationship between leadership and meaning in units where leaders are consciously attempting to nurture a sense of meaning within their command.

Overall, the results suggest that important ingredients of psychological resilience during operational deployment are effective leadership at all levels in the military unit, a sense of purpose or meaning, and strong cohesion and morale.

Perceptions of effective leadership can be the result of a range of activities, in addition to fostering morale and the meaning of the mission. Such activities include inspiring confidence in the competence of leaders, ensuring effective communication, conducting realistic training, fostering cohesion, applying sleep and fatigue management principles, promoting mutual support, resolving the personal problems of subordinates in a timely manner, making appropriate rotation decisions, promoting improvisation in the face of novel challenges, and, of course, achieving the mission. Future research should endeavour to distinguish the relative influence of such activities in the management of stress.

The items and subscales of the Positive Aspects of Deployment Scale provide a blueprint for commanders with respect to promoting a belief in the mission and promoting opportunities for meaningful experience. De Soir (1997) has strongly advocated "social patrols" to foster meaningful contact between deployed personnel and local residents. As discussed earlier, however, there are inconsistent findings with respect to interaction with the local populace and its impact on a sense of meaning.

Nevertheless, in Kosovo, U.S. Army soldiers who encountered grateful civilians were more involved in their work and had greater job satisfaction than those who did not (Adler, Dolan, Castro, Bienvenu, & Huffman, 2000). Evidence from the ADF experience in Somalia (Breen, 1998), compared with East Timor (Michalski, 2000), appears to confirm the importance of the nature and quality of the relationship between peacekeeping troops and local people on outcomes such as morale and level of satisfaction with the mission.

Overall, this study's results are encouraging. They support the military organisation's fundamental belief in the importance of leadership to operational effectiveness, particularly the role of leaders to foster and safeguard the well-being of their personnel. According to these findings, leaders in military units can promote psychological resilience through effective leadership behaviours. Just as Maurie Pears noted in the quote at the beginning of the Command section, leadership is pivotal to positive morale and cohesion. And in turn, morale is an antidote to the harmful impact of the various strains and hazards of operational deployment.

References and further reading

Adler, A. B., Dolan, C. A., Castro, C. A., Bienvenu, R. V., & Huffman, A. (2000). *USAREUR Soldier Study III: Kosovo Post-deployment*. Heidelberg: U.S. Army Medical Research Unit - Europe, Walter Reed Army Institute of Research.

Aldwin, C. M., Levenson, M. R., & Spiro, A. (1994). Vulnerability and resilience to combat exposure: Can stress have lifelong effects? *Psychology and Aging*, 9, 34-44.

Bartone, P. T. (2006). Resilience under military operational stress: Can leaders influence hardiness? *Military Psychology*, 18 (Supplement), S131-S148.

Bartone, P. T., Adler, A. B., & Vaitkus, M. A. (1998). Dimensions in psychological stress in peacekeeping operations. *Military Medicine*, 163, 587-593.

Baumeister, R. F. (1991). *The meanings of life*. New York: Guilford.

Bliese, P. D., & Britt, T. W. (2001). Social support, group consensus and stressor-strain relationships: Social context matters. *Journal of Organizational Behavior*, 22, 425-436.

Breen, B. (1998). *A little bit of hope: Australian Force - Somalia*. St. Leonards, NSW: Allen & Unwin.

Britt, T. W. (2003). Can participation in peacekeeping missions be beneficial? The importance of meaning as a function of attitudes and identity. In T. W. A. Britt, A. B. (Ed.), *The psychology of the peacekeeper: Lessons from the field* (pp. 71-88). London: Praeger.

Britt, T. W., Adler, A. B., & Bartone, P. T. (2001). Deriving benefits from stressful events: The role of engagement in meaningful work and hardiness. *Journal of Occupational Health Psychology*, 6, 53-63.

De Soir, E. (1997, 7-9 July). *Peace-support operations and family problems: Support activities to prevent culture shock and psychosocial family trauma*. Paper presented at the Psychological readiness for multinational operations: Directions for the 21st century, NATO/Partnership for Peace Workshop, Heidelberg, Germany.

Dinter, E. (1985). *Hero or coward: Pressures facing the soldier in battle*. London: Frank Cass and Company.

Dolan, C. A., & Adler, A. B. (2006). Military hardiness as a buffer of psychological health on return from deployment. *Military Medicine*, 171, 93-98.

Farley, K. M. J. (1995). *Stress in military operations* (Working Paper 95-2). Willowdale, Ontario: Department of National Defence, Canadian Forces Personnel Applied Research Unit.

Farley, K. M. J. (2002). *A model of unit climate and stress for Canadian soldiers on operations*. Unpublished Doctoral dissertation, Carleton University, Ottawa, Ontario.

Franke, V. C. (2003). The social identity of peacekeeping. In T. W. A. Britt, A. B. (Ed.), *The psychology of the peacekeeper: Lessons from the field* (pp. 31-51). London: Praeger.

Gal, R. (2006, 27 April). *Leadership, stress and coping in a combat environment*. Paper presented at the Australian Defence College Seminar, Canberra.

Gifford, R. K., Jackson, J. N., & DeShazo, K. B. (1993, 15-18 November). *Field research in Somalia during Operations Restore Hope and Continue Hope*. Paper presented at the 35th Annual Conference of the Military Testing Association, Williamsburg, Virginia.

Griffith, J. (1988). The measurement of group cohesion in US army units. *Basic and Applied Social Psychology*, 9, 149-171.

Halverson, R. R., Bliese, P. D., Moore, R. E., & Castro, C. A. (1995). *Psychological well-being and physical health of soldiers deployed for Operation Uphold Democracy: A summary of human dimensions research in Haiti*. Washington DC: Walter Reed Army Institute of Research.

Marshall, S. L. A. (1947). *Men against fire: The problems of battle command in future war*. Gloucester, MA: Peter Smith.

Michalski, J. (2000, 23 March). *Psychological support to Australian Defence Force operations in East Timor*. Paper presented at the Mental Health Impacts of Peace Support Operations Workshop, Canberra.

Milgram, N. A., Orenstein, R., & Zafrir, E. (1989). *Stressors, personal resources, and performance during wartime*. Military Psychology, 1, 185-199.

Moldjord, C., Fossum, L. K., & Holen, A. (2003). Coping with peacekeeping stress. In T. W. A. Britt, A. B. (Ed.), *The psychology of the peacekeeper: Lessons from the field* (pp. 169-184). London: Praeger.

Orsillo, S. M., Roemer, L., Litz, B. T., Ehlich, P., & Friedman, M. J. (1998). Psychiatric symptomatology associated with contemporary peacekeeping: An examination of post-mission functioning among peacekeepers in Somalia. *Journal of Traumatic Stress*, 11, 611-625.

Siebold, G. L. (2006). Military group cohesion. In T. W. Britt, C. A. Castro & A. B. Adler (Eds.), Military life. *The psychology of serving in peace and combat: Military performance* (Vol. 1, pp. 185-201). Westport, Connecticut: Praeger Security International.

Stouffer, S. A., Lumsdaine, A. A., Lumsdaine, M. H., Williams, R. N., Smith, M. B., Janis, I. L., et al. (1949). *The American soldier: Combat and its aftermath* (Vol. 2). Princeton, New Jersey: Princeton University Press.

Thompson, M. M., & Pastò, L. (2003). Psychological interventions in Peace Support Operations: Current practices and future challenges. In T. W. A. Britt, A. B. (Ed.), *The psychology of the peacekeeper: Lessons from the field* (pp. 223-242). London: Praeger.

Weisæth, L., & Sund, A. (1982). Psychiatric problems in UNIFIL and the U.N. soldier's stress syndrome. *International Review of the Army, Navy and Air Force Medical Services*, 55, 109-116.