Sofia Nilsson

Civil and Military Leadership Processes in Situations of Extreme Environmental Demands
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Abstract

The aim of the studies included in this thesis has been to increase the knowledge of civil and military leadership processes and their conditions in situations of extreme environmental demands.

The main part of the thesis is based upon empirical data gathered through semi-structured qualitative interviews with Swedish civil and military leaders. The studies, published in three articles, focused on leadership in situations of extreme environmental demands. The fourth article aimed at validating the theoretical model that was developed in study one. The thesis has pursued an integrated view in seeking to understand leadership and environment interactions during the conduct of international humanitarian aid and military peacekeeping operations. In order to study human adaption to meet challenges and demands in disasters and conflicts, the individual leader in relation to organisational and external environments has been considered.

The results show that leadership during these circumstances is a highly complex and demanding task. Premises for the processes involve a great number of environmental factors. In order to restore system balance within a larger system, there has to be congruence between an individual appraisal of organizational and external environments to achieve successful task completion. Inconsistency among the environmental factors may evoke adaption struggles characterized by both positive and negative stress responses which may affect performance and task completion. Reappraisal processes are shown to involve continuous assimilation processes of, and accommodation processes to the environment, illustrating the shifting balances between environmental forces, organizational pressures, and individual initiative.

The findings on stress responses are in line with earlier research, demonstrating that stress reactions exhibit great similarities regardless of hierarchical level, while also indicating a double-edged pattern concerning the overall development of stress reactions. However, differences with regard to moral stress between leaders at different hierarchical positions are found. Moral stress appears to lack the double-edged pattern since no positive reactions are reported even at moderate levels of stress impact.

Taken together, the findings imply that future civil and military leaders need education in complex person and environment interactions in order to get a holistic picture of the underlying mechanisms, thus promoting the development of their adaptive capabilities.
It is suggested that this thesis can be regarded as a context-specific contribution to complex systems theory by providing insight into the organizational and external environmental factors/demands that influence civil and military leadership.
The empirical data substantiating this thesis are derived from four studies that were conducted within two different projects at the Swedish National Defence College.

**Project 1.**
The first project was financed by the Swedish Civil Contingencies Agency. The aim was threefold:

1.) to gain a deeper understanding of the design and function of a managerial system before, during, and after acute international operations, both from the perspective of internal actors and from the perspective of significant groups outside of the organization,
2.) to validate the theoretical model that was developed with regard to the first aim by qualitative means of analysis,
3.) to gain a deeper understanding of moral dilemmas and moral stress during the conduct of international humanitarian aid operations.

**Project 2.**
The second project was financed by the Swedish Armed Forces with the overall aim of:

1.) gaining a deeper understanding of the demands put upon executive/strategic leaders during the conduct of international military peacekeeping operations. Emphasis was also put upon stress reactions arising from not being able to handle the demands that were reported.

The above described projects resulted in the following articles:


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1 Sofia Nilsson had responsibility for the gathering of data, the analyses, and the writing.
2 Sofia Nilsson had responsibility for the gathering of data, the analyses, and the writing.
3 Sofia Nilsson had responsibility for the gathering of data, the analyses, and the writing.

Introduction

Background and aim

To lose a million citizen city in that way... on a completely incorrect basis and furthermore, I thought that my perception of the situation was completely wrong. Had I gotten it all wrong... during all this time? Which I obviously hadn't... but then it was... they prevented me from acting... and I accepted it at the time. I stood by for further orders... developed the plans during one night and one day, so to speak, but I could never stage anything as I would have violated the orders that were given to me. It was extremely frustrating... because I realized what could happen, when [name of adversary, author's remark] dashed in... lots of rapes, especially in the poor areas... so many things that were demolished, summary executions in the streets... everything happened.... . (Quotation by a major-general, recalling a situation during a military peacekeeping operation)

The excerpt above reflects leader experience acquired during conduct of an international military peacekeeping operation, raising questions of the environment as supportive or preventive of the leadership assignment. In keeping with this, the four studies included in this thesis are based on leader experiences of situations of extreme environmental demands in the context of international humanitarian aid and military peacekeeping operations, though with a prime emphasis upon the former. This is a crucial topic as the rise of global world structures and transnational flows have brought along new demands that pose threats to stability. Security issues that challenge the system equilibrium transcend national borders, such as, arms trade, climate change, economic competition, ideological disharmony, rival alliances, streams of refugees, strategic nuclear race, terrorism, wars between third world states, and western exploitation, or to put it succinctly, ever ongoing disasters and conflicts (Appadurai, 1996; Aviolio & Gardner, 2005; Hicklin, 2003; Harkavy, 1989).

Instability being on the increase should be seen in the light of research, showing that the trend for both natural and man-made disasters occurring worldwide has risen significantly in the late twentieth century (EM-DAT, 2008; Sixth Annual Conference of the International Emergency Management Society, 1999). In 2010, 373 natural disasters were reported with approximately 300,000 casualties, affecting 207 million people (EM-DAT, 2011). The same year there were 30 armed conflicts taking place (USD P, 2011, Uppsala conflict data program). Conflicts alone are asserted to have claimed more than five million lives in the past decade (Human Security Report Project, 2011; Shigemura & Nomura 2002).
Efforts to handle the emergent and increasingly complex threat scenario are characterized by a continuous international commitment to disaster aid and conflict resolution through foreign civil and military presence, thus the primary objective of humanitarian aid is to save lives, alleviate suffering, and maintain human dignity while military peacekeeping operations aim to create conditions for lasting peace. The ultimate notion rests upon holistic or comprehensive paradigms to ensure that catastrophic events are viewed as shared responsibility (McEntire, Fuller, Johnson & Weber, 2002; Trim, 2004) besides, previous experience has shown substantial strategic advantages to be gained through coalition and alliance operations (Stewart, Clarke, Goillau, Verrall, & Widdowson, 2004). As such, humanitarian aid and military organisations depend on external forces to survive. However, international collaboration, usually portrayed as a key mechanism for survival in a dynamic and interlocked world, has brought with it challenges in itself as it tends to create external dependencies and enhances difficulties related to cultural disparities (see for example, Berggren, 2004; Dickson, D'en Hartog, & Mitchelson, 2003; Elron, Shamir, & Ben-Ari, 1999; Karrasch, 2003; Sjöblom, 2006; Quarantelli, 1988). The dramatic change in the Swedish threat scenario is assumed to conjure up a need for complex, rapidly changeable, and environmentally dependent organisations with highly skilled leaders for a great degree of flexibility. Thus, working in a most complex and unstable international environment is assumed to place new demands on organisations of humanitarian aid and conflict resolution in general, as well as for civil and military leadership in particular.

Leadership is described as a major factor that impacts on human and organizational effectiveness. Accordingly, civil and military leaders play a vital role in the successful handling of disasters and conflicts and are essential for human survival. Civil and military leadership exercised in a highly complex and unstable environment results in specific demands and subsequently, leadership does not exist in a vacuum, but is highly sensitive to context (Avolio & Gardner, 2005; Bryman, Stephens, & Campo, 1996; House & Aditya, 1997; Porter & McLaughlin, 2006). McFarlane (2004) notes that “contemporary humanitarian aid personnel increasingly work in complex environments where problems related to prolonged civil conflict, poverty, and disaster are rife” (p. 1) while Driskell, James, Salas, Eduardo, and Johnston (2006) assert that “there are few settings outside the military that impose such a high demand on personnel and in which there is such a substantial potential for risk, harm, or error” (p. 129). Ultimately, this means that the environment might not always offer any desirable action alternatives with regard to successful task completion. Both
international and Swedish research shows that inability to handle environmental demands has resulted in a growing number of stress-related diseases (Gabriel & Liimatainen, 2000; Karlsson, 2005). In the context of international humanitarian aid and military peacekeeping operations, such risks are assumed to be brought to a head as situations are often characterized by demands for minute-operative decisions based on inferior basic data for decision making while a lot is at stake, sometimes even in terms of life and death (Bartone, 2006; Cosgrave, 1996; Driskell et al., 2006; Larsson, 2010; McFarlane, 2004). Driskell et al. (2006) caution that “the effects of stress on performance are most likely to occur when they can be least tolerable: during critical situations” (p. 129). Thus, the impact of stress on leader performance might be devastating (Kavanagh, 2005). Here it is suggested that only by taking the dynamic interplay of stability and change of the most complex and unstable environment into consideration, do we have the ability to make qualified hypotheses on how to plan for effective leadership in the handling of conflicts and disasters, ultimately relieving the suffering of many.

The aim of the studies included in this thesis has been to increase the knowledge of civil and military leadership processes and their conditions in situations of extreme environmental demands. The specific research questions that have guided the studies have been as follows:

1) What organisational and external environmental factors influence leadership in situations of extreme environmental demands?
2) How do leaders describe leadership and environment interactions in situations of extreme environmental demands compared to the descriptions given by others keeping lower positions in the hierarchies?
3) What are the stress responses of leaders not being able to influence extreme environmental demands?
4) What are the theoretical implications of the results of this thesis for future research?
5) What are the educational implications of the results of this thesis for preparing leaders to act in situations of extreme environmental demands?

The main part of the thesis is based upon empirical data gathered through semi-structured qualitative interviews with Swedish civil and military leaders. The empirical studies, published in four articles, emphasised leadership during
situations of extreme environmental demands and used a process-over-time perspective (before, during, and after) with regard to the conduct of international humanitarian aid and military peacekeeping operations. The fourth article aimed at validating the theoretical model that was developed in article 1.

In the following, a contextual approach to civil and military leadership processes and their conditions in situations of extreme environmental demands is introduced. In the section that follows, previous research on leadership environments and stress with relevance to the focus of this thesis is presented. Thereafter, methodological considerations are described, followed by a section where the four papers are summarized. A discussion drawing on the empirical issues and theoretical insights will conclude the thesis.
A contextual approach

Civil and military leadership processes and their conditions in situations of extreme environmental demands are in focus. As the theoretical field describing complex leader and environment interactions stands out as rather disjointed, it appears essential to approach the subject matter on the basis of a coherent framework that provides a foundation for reflection and understanding.

The leader, inter-related with the environment

The kind of framework that is needed to understand the dynamic leader and environment relationship emphasises the physical and social work environment and, more specifically, aspects that promote or hinder leadership processes during everyday task completion (Ohlsson, 1985; Granberg, 1998). My contextual approach is anchored in systems theories, viewing the individual as an open organism constantly interacting with the environment. As such, it is assumed that a leader cannot be seen as separate from the environment but rather one who is part of an open system at all times. The leader communicates with the environment and is at the same time always affected by it. This reciprocal interaction is constituted by a continuous process over time. In leadership literature, there is a growing consensus among scholars concerning the importance of the environment in understanding leadership processes (for an overview, see Porter & McLaughlin, 2006). Approaching leadership and environment interactions in this way implies that the leader is regarded as central in understanding such interactions.

Looking at previous research, leadership is dealt with in various ways (Yukl, 1989). Some state that “there are as many definitions of leadership as there are persons who have attempted to define the concept” (Stogdill, 1974, p. 259). I use three theoretical starting points in the research reported here: (1) leadership is a process, (2) leadership is about influence, and (3) leadership is about attaining goals (Maltén, 2000; Northouse, 2004). However, as these influential processes are not to be viewed as exclusively reserved for the leader-subordinate relationship, the aforementioned standpoints connect to Osborn, Hunt, and Jauch (2002), asserting that leadership “is not only the incremental influence of a boss toward subordinates, but most important it is the collective incremental influence of leaders in and around the system” (p. 798). Subsequently, leadership processes refer to “a series of attempts, over time, to alter human actions and organizational systems” (Osborn et al., 2002, p. 832).
Gardner (2003) similarly states that “they [leaders, author’s remark] are an integral part of the system, subject to the forces that affect the system. In the process leaders shape and are shaped” (Gardner, 1993, p. 1). It is worth noting that, even though no further discussion will be undertaken concerning the distinction between leadership and management, management should be understood as an indirect form of leadership in terms of leaders at the strategic or executive level having to rely upon indirect influential processes on employees not reporting directly to them (Larsson, Sjöberg, Vrbanjac, & Björkman, 2005; Yammarino, 1994). Related to such notions, the concept of ‘management system’ is to be regarded as the formal organization’s distinctive features regarding cultural and structural prerequisites in which the leader is embedded.

Taken together, the theoretical understanding of leadership from a contextual approach can be summarized as leadership being a complex, multi-level, and socially constructed process (Conger, 1998; Gardner, Lowe, Moss, Mahoney, & Cogliser, 2010), where the notion of process implies that something is changing (Lazarus, 2006).

**Appraisal and coping as leadership and environment interaction strategies**

The contextual approach to leadership holds that individuals continuously strive to maintain a balance with the environment with the utmost aim of successful task completion. The complex, unpredictable, and dynamic context of international humanitarian aid and military peacekeeping operations is apt to create great pressures on leadership (Driskell et al., 2006; Paton & Fin, 1999). Here it is suggested that leader inability to handle extreme environmental demands disrupts the system equilibrium whereupon the leader strives to re-establish the former balance by adaptive and re-adaptive measures.

Leader adaptation to the environment involves two sub-processes, assimilation and accommodation. Assimilation processes make it possible for the leader to assimilate sensory impressions of the environment and to adapt these to already existing cognitive schema. Besides assimilation processes, there are accommodation processes in progress at the same time, through which cognitive schema are continuously adapted to make them more suited to new information and preparing the leader for further environmental impressions (Piaget, 1971). Both parallel processes are regarded as active because the leader is assumed to choose from information alternatives while reversely, such
processes make the leader understand his or her environment by actively developing new knowledge. Every form of new leader behaviour, both external and inner thoughts, is characterized by adaptation or re-adaptation while physical and social behaviours aimed at self-adjustment are assumed to render such adaptation possible (Granberg, 1998).

Similarly, the cognitive phenomenological theory of stress provides an interactional view to the person-environment relationship. Lazarus (1991), for example, defines appraisal as “how an environmental display gets attended to, registered, encoded, transformed, stored, and retrieved, leading to decision making” (p. 134). The author distinguishes between cognitive appraisal and coping which are viewed as mediators of the person-environment relationship. In turn, cognitive appraisal is assumed to involve primary and secondary appraisal, the former referring to the perception of whether there is a threat at all, while the latter addresses what available resources there are to manage a situation. Thus, the term ‘secondary appraisal’ describes efforts to exercise control based on the coping options of a given situation, for example, whether there are any means to prevent harm from occurring or whether the individual can ameliorate the situation (Lazarus & Folkman, 1984). In keeping with this, it is suggested that assimilation and accommodation processes contain appraisal and coping mechanisms during efforts to adapt to situations of environmental demands. The contextual approach holds that the processes through which the leader apprehends and creates his or her understanding of the environment can be physical, social or cultural (Granberg, 2004; Ohlsson, 1985). Hence, the application of a contextual approach to leadership opens up for going beyond the notion of interaction processes as solely being cognitive in nature.

**Stress responses for restoring system balance**

Prerequisites for leader actions aimed at handling situations of extreme environmental demands are thought to have become tougher during the recent decade. Karlsson (2005) questions if demands arising from ever continuing and accelerating changes and complexity are so fundamental that issues do not only concern how but also if we are at all to cope. The author fears that individuals are approaching the limits of human capacity. Such apprehensions are made visible in a growing number of psychological illnesses and stress-related diseases due to work-related demands (Gabriel & Liimatainen, 2000; Karlsson, 2005) that appear to hold true if looking at civil and military leaders dealing with
humanitarian aid and conflict resolution. As these situations are often characterized by demands for minute-operative decisions based on inferior basic data for decision making while a lot is at stake, sometimes even in terms of life and death (Driskell et al., 2006; Hearns & Deeny, 2007; Larsson & Kallenberg, 2006), the risk of system disruptions is assumed to be brought to a head. The leader is then likely to be affected by stress, e.g. a state of psychological disequilibrium or a perturbation of the organism (Lazarus & Folkman, 1984; Jameton, 1984), indicating that the system balance is impaired. From such a perspective, stress is suggested to comprise psychological adaption to extreme environmental demands as it mobilizes the individual to achieve more in order to restore system balance (Koopman, Classen, Cardena, & Spiegel, 1995). However, if coping strategies are ineffective, stress might have damaging consequences, ultimately threatening survival (Lazarus, 2006; McEwen & Lasley, 2003). My contextual approach makes it possible to move beyond the idea of stress as a phenomenon at the individual level by placing stress responses in the intersection between the leader and the environment instead.

**Summary**

I have used a contextual approach to study civil and military leadership processes and their conditions in situations of extreme environmental demands. Thereby leadership processes have been placed in larger environmental contexts. The concepts of adaption and re-adaption are essential in understanding such interactions. Interactions between the leader and the environment are regarded as ongoing and changing processes, holding cognitive as well as physical, cultural, and social aspects, and stress is seen as the intersection between the individual and the environment.
Previous research

In seeking to unravel the nature of leadership environments and stress as portrayed in earlier research, there are two ways this can be done. Either it is a matter of applying a context-free orientation, emphasising theories that are applicable to a broad range of organisations or to choose a more context-specific orientation, emphasising the unique characteristics of humanitarian aid and military peacekeeping operations. However, Wong, Bliese, & McGurk (2003) prefer to argue for an integrated review that involves both. In this chapter, an overview of both context-free and context-specific research approaches to, and empirical findings on leadership environments and stress will be given.

Leadership environment

Leadership is acutely context sensitive... The zones of manoeuvre open to the [new] leader deciding what to change and how to go about it are bounded by context within and outside the firm [organization, author's remark]. (Pettigrew & Whipp, 1991, p. 165)

There is evidence for acknowledging the relevance of context in explaining leadership that goes back to the writings of Plato on the moral and ethical purpose of leadership. Even so, more recent leadership scholars are often accused of omitting taking contextual or situational variables into account, in spite of strong evidence that they play a crucial part in understanding leadership processes (Bryman, 2004; Conger, 1998; Hunt & Dodge, 2001; Hunter, Bedell-Aversa, & Mumford, 2007; Lowe & Gardner, 2000; Jackson & Parry, 2008). Accordingly, there are many who accuse leadership constructs of ignoring the very context in which the leader is embedded (Bass, 1990; House and Aditya, 1997; Popper & Zakkai, 1994; Porter and McLaughlin, 2006; Rost, 1991; Elron et al., 1999; Trevino, Weaver, & Reynolds, 2006; Yukl, 2006). Lately however, scholars have abandoned the earlier study of leadership as predominantly relying on individual characteristics as leadership is increasingly regarded to be shaped by a large number of contextual and situational factors related to the broader leadership environment (see for example, Berson, Shamir, Avolio, & Popper, 2001; Kempster & Parry, 2011; Gardner et al., 2010; Porter & McLaughlin, 2006; Yukl, 2006).

Basically, there are two approaches to the study of leadership environments, the contextual and the situational approach. Both approaches hold that the
interplay between leader and contextual or situational characteristics shape leadership actions assuming that there is a need for consistency between leader behaviours and contextual or situational factors for leadership effectiveness (Endler & Magnusson, 1976; Osborn et al., 2002).

The contextual approach to leadership refers to a broad category encompassing leadership theory focused on specific areas (Gardner et al., 2010), as in my case, the context of international humanitarian aid and military peacekeeping operations. There is a distinction made between the proximal and distal context. The proximal context refers to the most immediate context in which the leader is embedded in terms of time and impact containing the work or unit climate, group characteristics, task characteristics, and performance domain (Avolio, 2007). Similarly, major components of the organisational context are reported to involve culture/climate, goals/purposes, people/composition, processes, state/condition, structure, and time (for a critical review, see Porter & Laughlin, 2006). Overall, organisational factors are suggested to differ between different types of organisations providing specific preconditions for leadership.

The distal context is stipulated to emphasise the context outside of the organisation or, slightly differently worded, organizational culture and characteristics of the broader social and cultural environment, such as stability versus turbulence, the nature of competitors, cycle time in terms of innovation, national events, and culture (Avolio, 2007). Marion and Uhl-Bien (2001) define the boundary conditions of a context in organisational complexity terms by the degree of change and the focus of such change. The authors claim that leadership contexts range from stability to chaos (Osborn et al., 2002). My focus would, on such presumptions, be on leadership processes in crisis conditions, exposing leaders to specific environmental demands due to the unique character of humanitarian aid and military peacekeeping operations. Examples of empirical studies within the contextual realm of leadership that explicitly focuses upon a leadership context from a Nordic perspective are indirect leadership under severe stress (Larsson, Harem, Sjöberg, Alvinius, & Bakken, 2006) and Larsson’s & Hyllengren’s (in press) study emphasising the impact of organisational variables (e.g. group characteristics, group processes, specialisation, formalisation, centralisation – decentralisation) as well as variables outside the organisation (e.g. distal or remote environment, and proximal or operating environment) on leadership. Results show the extent to which environmental factors impact on leadership at different hierarchical levels.
While the aforementioned contextual approach to leadership environments puts emphasis on specific contexts, the situational approach emphasises the importance of situational factors that are apt to influence leadership instead. More specifically, these theories emphasise how the situation influences the effects of leader behaviours and traits or aims at identifying situational factors that moderate the relation of leader attributes (e.g. traits, skills, behaviour) to leader effectiveness. Contingency theories constitute the dominating situational approach to leadership (Yukl, 2006). Contingency theories, such as LPC contingency model (Fiedler, 1964, 1967), situational leadership (Hersey & Blanchard, 1984), the path-goal theory (Evans, 1970; House, 1971), the leadership substitute theory (Kerr & Jermier, 1978), the multiple linkage theory (Yukl, 1981), and cognitive resources theory (Fiedler, 1986; Fiedler & Garcia, 1987) differ regarding situational moderator factors but have an emphasis on inter-organisational factors in common, for example, subordinate characteristics, task characteristics, and organisation characteristics.

The demands-constraint-choices theory puts a greater emphasis on the external environment in which the organisation is embedded by asserting that leaders face specific challenges by being in a particular type of position in a particular type of organization (Stewart, 1976, 1982). For example, seen in the light of the demands-constraint-choices theory, presuming that the pattern of interactions depends on the nature of work, humanitarian aid and military peacekeeping operations are likely to be more reactive than self-generating, more variable than repetitive, more uncertain than predictable, more fragmented than sustained, and finally more hurried than unhurried.

There is criticism directed towards both the contextual and situational approach to leadership. For example, Porter's and McLaughlin's (2006) review of leadership research on the contextual approach concludes that there are no “universally agreed-on set of components that comprise the context for leader behaviour occurring within organisational settings” (p. 562) while others state that the results of the situational approach are difficult to interpret due to confusion within various aspects of the situation. Terminology differs and there are a multitude of diverse situational variables approached in various ways (for a critical review, see Yukl, 1996).

Apart from the criticism directed towards the contextual and situational approach on how to study environmental factors influencing leadership, the many views on what factors or variables are relevant study objects, the assumptions about the very relations between various factors or variables (e.g. strategic, structural, and environmental) are also disputed (Miller, 1981). Miller
(1981) notes, for example, that there are unwarranted generalizations, which have resulted in fragmented and conflicting findings. Lowe and Gardner (2000) identify another problem in studying interrelated factors, asserting that “although contextual variables are explicitly identified in several leadership theories, they are often absent or subjugated to other variables in theory testing” (p. 497). Hunter et al. (2007) go a little further in stating that the typical leadership study fails at taking contextual or environmental factors into account, both concerning moderating factors and other possible factors that need to be checked.

Even though some of the situational theories of leadership, for example, the path-goal theory, the contingency theory, and the cognitive resource utilization theory assess the impact of stress on leader emergence and effectiveness (for a discussion, see Smith & Cooper, 1994), contextual approaches to leadership do, by and large, fail to assess environmental demands that are more extreme in nature. Overall, the critique that is directed towards the contextual and situational approach to leadership confirms that there is a need to take a somewhat broader contextual approach to the study of leadership and environment interactions.

International humanitarian aid and military peacekeeping operations are executed in highly complex and unstable environments creating specific demands on civil and military leaders. As situations of extreme environmental demands are in focus for this thesis, it becomes essential to ascertain what is meant by extreme environmental demands. So, how does the scholarly community approach extreme environments? In keeping with the literature, Selye’s (1936) viewpoint on ‘demands’ places them on an equal footing with stressors, as both demands and stressors are assumed to comprise either a stimulus or an event (see also, Kolditz, 2007; Pearlin & Schooler, 1978). As such, demands appear to be about stressors. Hence, it is essential to address the literature on stress to unravel leadership environments that are more extreme in nature. Compared to the contextual or situational approach to leadership, studies focusing on environmental demands or stressors take a somewhat different approach to the environment.

As a basic hypothetical assumption, approaches to demands or stressors claim that no environmental factors are automatically extreme in nature. It is rather a matter of the individual ascribing meaning to something as being extreme. As a result, one and the same situation might be extreme or stressful to one individual, but not to another. Theoretically, Larsson, Tedfeldt, and Wallenius (2006) assert it to be contradictory to even talk about extreme or
stressful events as they are not extreme or stressful per se. Even so, at a more general level a context might be described as extreme or stressful, for example, disastrous or conflict areas, since most people are expected to find such environments as extreme or stressful, but still on the basis of different experiences.

According to the literature, there is a distinction made between physiological, psychological, and social demands. As part of the changed threat scenario, the degree, complexity, and scope of working life are stated to also have accentuated recognition of ethical aspects (Jones, 1991; Richardson, Verweij, & Winslow, 2004; Trevino et al., 2006; Wong et al., 2003). It is argued that organisations "are addressing challenges that run the gamut from ethical meltdowns to, for example, terrorism" (Avolio & Gardner, 2005, p. 316). Moral demands are defined as situations where the individual is conscious of the morally appropriate action a situation requires, but who cannot carry it out due to institutional obstacles (Jameton, 1984) or situations characterized by more than one right course of action, where the choice to act on one decision will necessarily preclude the possibility of acting on the other (Corley, 2002).

In the next section, empirical findings on extreme environmental demands or stressors in a humanitarian aid and military peacekeeping context will be presented and discussed.

**Extreme environmental demands in a humanitarian aid context**

Humanitarian aid operations are aimed at aid and action designed to save lives, alleviating suffering and maintaining and protecting human dignity during and in the aftermath of emergencies. They are intended to be governed by the principles of humanity, neutrality, impartiality, and independence and intended to be short-term in nature and provide for activities in the immediate aftermath of a disaster (Global humanitarian assistance). With regard to the conduct of international humanitarian aid operations, there is substantial literature on demands put upon disaster survivors and victims (see for example, Bravo, Rubio-Stipec, Canino, Woodbury, & Ribera, 1990; Flin, 1996; Norris et al., 2002; Perry & Lindell, 1978). Such literature hints at the extremity inherent in the environment of humanitarian aid, but falls outside the scope of this thesis.

Turning more specifically to previous research on humanitarian aid, the environment has been regarded as synonymous with natural disaster for a long time, meaning that scholars have not expressed any particular interest in the extremity of environmental demands (Hearns & Deeny, 2007). In recent
decades however, disasters are reported to have become increasingly harsher, as many are defined as complex humanitarian emergencies including a large number of problems such as war, ethnic conflict, famine, endemic diseases, poverty, and political unrest (Eriksson, Kemp, Gorsuch, Hoke, & Foy, 2001; Heams & Deeny, 2007; Janz & Slead, 2000; McFarlane, 2004). Research shows how humanitarian aid organizations, to a degree never experienced before, “are confronted with contexts so violent that many choose to hire armed guards and request the assistance of military organizations for protection, logistics, and communications support” (Ebersole, 1995, p. 192). Accordingly, the literature on potential demands has grown, pointing to a multitude of stressors, for example, humanitarian aid professionals being targets of, or witnesses to violence, conflicts, culture shock, abduction, deportation, role ambiguity, personal contact with trauma victims, timing, social, cultural, and geographical isolation, etc. (for a more thorough overview, see for example, Eade, 2006; Eriksson et al., 2001; Burkle, 2005; Musa & Hamid, 2008; Musa, Hamid, Alghorani, & Abu Eiyda, 2009; McFarlane, 2004; VanRooyen, Hansch, Curtis, & Burnham, 2001).

In spite of a growing number of studies on demands, Flin (1996) notes that research on disaster managers is poor and that there is hardly any insight into the demands that are likely to affect them. Paton and Flin (1999) make an exception by approaching the leadership situation at higher organizational levels and discussing exposure to high demand situations, e.g. initial lack of knowledge, chaos, bureaucracy, time pressure, responsibility, sight of casualties, communications (or the lack of them), dealing with media, operating within a team or integrated emergency management, etc. Some demands are, more specifically, reported to interfere with decision making processes, for example, time constraint, limited information, and decision load constraint. The handling of disasters is, for example, assumed to be critically time bound since failure to respond quickly might claim human lives. Decisions usually have to be made “in the heat of the moment” (Cosgrave, 1996). Extreme environmental demands are reported to change throughout the different phases of disaster (Paton, 2003).

Turning to previous research on moral dilemmas in a humanitarian aid context, there is substantial literature on disaster ethics focusing, for example on the role of local institutions and recovery (Petterson, 1999), economic resources in relation to disaster victims (Beatley, 1989; Kahneman & Knetsch, 1992), children’s responses to disaster and child care (Millner & Clark, 2009). However, Beatley (1989) notes that besides discussions on effectiveness,
political feasibility, legality, and other aspects of natural disaster mitigation, moral and ethical dimensions are usually overlooked. If that is the case, it is somewhat surprising because there are incentives for humanitarian aid personnel who are confronted with moral demands, for example, having to witness human rights abuses and not being able to react to them (McCall & Salama, 1999).

**Extreme environmental demands in a military context**

In the UN charter it is stated that “Beyond simply monitoring cease-fires, today’s multi-dimensional peacekeeping operations are called upon to facilitate the political process through the promotion of national dialogue and reconciliation, protect civilians, assist in the disarmament, demobilization and reintegration of combatants, support the organization of elections, protect and promote human rights, and assist in restoring the rule of law” (United Nations, 2008, p. 6). Peacekeeping is thus “a technique designed to preserve the peace, however fragile, where fighting has been halted and to assist in implementing agreements achieved by the peacemakers, while peace enforcement involves the application, with the authorization of the Security Council, of a range of coercive measures, including the use of military force” (United Nations, 2008, p. 18).

Turning to previous research on the military, the environment is portrayed as stressful and dangerous. Demands are reported to range from relatively minor physical hardships to significant physical danger while they differ in terms of both quality and quantity (Britt, Davidson, Bliese, & Castro, 2004; Schmitt & Klein, 1996). Looking more closely at the nature of demands, common deployment stressors are reported to comprise, for example, isolation, ambiguity, powerlessness, boredom (alienation), workload, danger (threat), risk of death and disease, boredom, separation from family, task insignificance, great workload, long work hours, unit conflict, lack of sleep, uncertainty, violence, killing other human beings, etc. (for a more thorough discussion, see for example, Bartone, 2006; Britt et al., 2004; Campbell, Ritzer, Valentine, & Gifford, 1998; Halverson, Bliese, Moore, & Castro, 1995; Kavanagh, 2005; McFarlane, 2004; Schmitt & Klein, 1996). Some demands are reported to influence decision making processes. Examples of such demands are sudden and unexpected stressors that disrupt normal procedures as high-stress events unfold quickly and require an immediate response, immediate and severe
consequences of poor performance, the causes of the event may be unclear, the required response is outside standard operating procedures, events are dynamic and variable, personnel must perform multiple tasks under conditions of great time pressure, noise, heat, smoke, darkness, etc. (Cannon-Bowers & Salas, 1998; Driskell et al., 2006). The majority of research emphasizes deployment stressors in the low-level field being conducted within a US context (see for example, Bartone, 2006; Griffith, 2002; English, 2000; Williams & Johnson, 2006). Consequently, these findings might not be directly applicable to UN peacekeeping operations characterized by humanitarian assignments rather than regular warfare and combat (see for example, Bartone, 2006; Eden, 1999; English, 2000; Griffith, 2002; Horn, 2004; Kavanagh, 2005; Williams & Johnson, 2006). In contrast, looking at literature emphasizing the Swedish military on UN peacekeeping operations, examples of stressors are reported to comprise time pressure, work load, lack of support, threats, casualties, isolation, cultural differences, etc. (Andersson, 2001; Johansson, 2001; Michel, Lundin, & Larsson, 2003; Wallenius, 2001; Wallenius, Larsson, & Johansson, 2004). Alike the US-originated research, most studies are conducted with regard to environmental demands in the low-level field area (Hicklin, 2003). Andersson (2001) makes an exception by focusing on the leader situation at higher hierarchical levels.

A majority of ethical dilemmas within a military context are reported to stem from the paradox inherent in military ethics: sometimes having to resort to violent means for the utmost purpose of maintaining peaceful conditions (for a discussion see for example, Toiskallio, 2007). Previous research shows how moral demands concern, for example, how to aim or direct force, expectations of minimal civilian casualties, the role of assassination in the war against terrorism, the use of armed forces for humanitarian missions, and the encroachment of civil liberties in the quest for homeland securities, collateral casualties, etc. (for an overview, see Wong et al., 2003, p. 666; Bartone, 2005; Carr, 2008; McKown, 2009; Moore, 1998; Kasher & Yadlin, 2006; Lucas & Rubel, 2009; Pfaff, Reich, Redman, & Hurley, 2011; Roblyer, 2005; Tripodi, 2006; van Baarda & Verweij, 2009). In spite of relatively vast literature on military ethics, moral dilemmas appear to have gone on more or less unnoticed.

In sum, there is substantial literature on extreme environmental demands in both a humanitarian aid and military context. However, previous research tends to account for environmental demands in the low-level field area, whereas a lack of research is particularly noticeable concerning the leader situation at
executive and strategic levels of organisation. The content of situations involving moral dilemmas appears to be under-studied in general.

Summary

Two professional groups, humanitarian aid and military professionals in leading positions, working in threatening and dangerous situations are in focus. Although civil and military leadership is referred to many times in the same sense throughout this thesis, there are of course variations regarding their respective context. However, the prevalence of complex humanitarian emergencies means that civil and military leaders increasingly share the same disastrous areas while there are similarities regarding their organisational prerequisites as operations are executed internationally based on UN or EU mandates, while being state-run. One major difference however, refers to military leaders sometimes having to resort to violence during peace enforcement operations, while a mandate might not allow them to directly interact with the local population. This might add to the demands experienced.

Some basic assumptions of both the contextual and situational approach are that leadership and its effectiveness depends upon individual as well as contextual and situational characteristics. Hence, the study of civil and military leadership processes and their conditions in situations of extreme environmental demands, involves both context and situation as leadership is exercised in situations that occur in larger environmental contexts. Individual characteristics of the person-situation paradigm are implicitly implied in the cognitive and action-oriented handling of environmental demands.

Apart from the critique directed towards the contextual and situational approach, scholars tend to study contexts and situations on the basis of, more or less generic variables. The application of generic variables appears to be inconsistent with the very purpose of claiming to consider contextual and situational variations. In addition, the contextual and situational approach tends to focus upon inter-organisational variables while often leaving out factors in the external world in which the organisation is embedded. In turn, the research approach to more extreme environments appears incomplete in that it neglects multi-level differences. For the purpose of this thesis, it appears essential to integrate the organisational perspective of the contextual and situational approach with the approach to environments that is more extreme in nature in order to get an overall understanding of leadership processes and their
conditions in situations of extreme environmental demands. Accordingly, I draw upon both fields in approaching the leadership environment.

Turning to previous studies on extreme environmental demands in a humanitarian aid and military context, there appears to be a general need to explicate the stress situation at higher hierarchical levels, while also scrutinizing moral aspects that are apt to influence leadership processes.

**Stress and stress responses**

The conduct of international humanitarian aid and military peacekeeping operations takes place in an environment characterized by extreme environmental demands putting civil and military leaders at risk of being affected by stress (Kavanagh, 2005; Paton & Flin, 1999). There is extensive literature showing that individuals function differently in situations of extreme environmental demands as compared to more stable and calm conditions. Human exposure to stress tends to result in a variety of positive and negative physical and mental consequences, affecting performance both favourably and unfavourably that, in turn, might influence task completion (Bartone, 2006; Lazarus, 1999; Wallenius, 2001). It should be noted that this thesis does not emphasize stress with regard to health aspects, for which there is substantial literature. The focus is upon healthy individuals in two professional groups, working in threatening and dangerous situations.

**The stress concept**

The stress concept is vague and difficult to define and can be viewed as an umbrella concept substantiated by various reactions (Kavanagh, 2005). Hogan and Hogan (1982) describe stress literature as "awash in a sea of terminology" (p. 153) while Driskell et al. (2006) accuse the concept of being so broadly assessed that it hardly means anything. Selye (1936) was the first to have an impact on the direction of stress research by defining stress as a "non-specific result of any demand upon the body" (p. 32). Subsequently, he came up with a more or less generally accepted conceptualisation in terms of "a reaction to noxious events," e.g. demands or stressors. Selye (1936) describes stress as a sort of "gradual attrition" or "a state of tension of physiological and psychological nature" where both body and psyche react by adopting various kinds of defence mechanisms, while assuming that if the individual is not
capable of giving up such defensive patterns, he or she will be exhausted and ultimately collapse. Apart from the diverse terminology used in stress research, the concept has predominantly been influenced by its long tradition within the medical/psychoanalytical paradigm, relying on perspectives that tend to approach individuals as chronically stressed (Seyle, 1936). Consequently, studying stress has often meant being preoccupied with illness and what people lack in order to cope better, thus emphasising disordered behaviour, coping, and treatment. So being the case has resulted in a lack of perspectives paying attention to the effects of stress on performance, effectiveness, and productivity in real-world task environments (Driskell et al., 2006). However, during the Second World War, the number of studies focusing on “normal individuals in situations of stress” brought the research field closer to the psychology discipline (Janis, 1951). Today, stress impact is a highly recognized problem in working life in general.

The various definitions of stress differ by paying diverse attention to the stimulus environment, the response of the individual, and the relationship between the person and the environment. Depending on approach, there are different definitions of the stress concept:

1. The stimulus-based definition in terms of environmental events that impact the individual: “[Stress is] any change in the environment that induces a high degree of unpleasant emotion... and affects normal patterns of information processing” (Janis & Mann, 1977, p. 50).
2. The response-based definition focusing on the response of the individual to stress: “[Stress is] an adaptive response... that is a consequence of any external action, situation, or event that places special physical and/ or psychological demands upon a person” (Ivancevich & Mattson, 1980, p. 8).
3. The relational-based definition emphasising the relation between environmental demands and individual responses: “Psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984, p. 19).

The studies included in this thesis build on the relational-based definition of stress. Cognitive phenomenological theory of stress is suggested to be
particularly relevant as it sheds light on person and environment interactions in working life (Lazarus & Folkman, 1984).

**Appraisal and coping**

Stress theory has developed from having a simple systems thinking perspective to becoming a complex cognitive theory; paying attention to cognitive processes in which humans are not viewed as unbiased information processors (Kaufmann & Kaufmann, 2005). Cognitive appraisal is regarded as a process through which an individual interprets and evaluates a particular encounter with the environment. Hence, individual perception and attention are reported to impact the responses to a given situation (Ford, 1985). As prominent differences regarding individuals’ reactions are reported, due to various mediators, e.g. experience, personality, hardness, etc. (Bartone, 2006; Paton & Flin, 1999), it is assumed that no individual will react in the same way when exposed to the same environmental stimuli. However, the vast literature on ‘meaning’ in the handling of stressful experiences is reported to have caused a lack of clarity due to a variety of conceptualizations of ‘meaning’, e.g. general life-orientation, personal significance, causality, coping activities, and the outcome when dealing with traumatic events (Park & Folkman, 1997, p. 115).

In general, it is assumed that the stress process begins when there is an imbalance between individual experience of demands/ambitions and ability/resources to fulfil these (Johansson, 2005). Hence, when demands exceed available resources, the situation is likely to be appraised as stressful whereupon the individual tries, consciously or unconsciously, to master them. Similarly with appraisal processes, individual perception is suggested to be crucial in understanding an individual’s actual way of preventing, avoiding or controlling stress (Park & Folkman, 1997). Coping is more specifically defined as “efforts to manage adaptational demands and the emotions they generate” (Lazarus, 2006), “the things people do to avoid being harmed by life-strains”, “any response to external life-strains that serves to prevent, avoid, or control emotional distress” (Pearlin & Schooler, 1978, p.3) or “the ways people actually respond to stress (e.g. seeking help, rumination, problem solving, denial, cognitive restructuring)” (Skinner, Edge, Altman, & Sherwood, 2003, p. 216).

Coping is suggested to include two functions in terms of cognitive/problem solving and/or emotional strategies. The former refers to the individual seeking to influence the problem at hand through, for example, the gathering of new information (e.g. problem solving) while the latter aims at reducing emotional
tension, with regard to the task assignment (e.g. positive re-appraisal, invulnerability illusion, positive refocusing, acceptance, self-blame, seeking help, rumination, denial, intrusion, avoidance, sensation seeking, etc.) (Kraaij & Garnefski, 2006; Lazarus & Folkman, 1984; Pearlin & Schooler, 1978; Wallenius, 2001).

According to Lazarus’ (2006) more recent cognitive-relational theory of stress involving emotions, the author wishes to abandon the idea of problem and emotions-focused coping as two independent types of coping. Rather, the two coping functions should be viewed as components that substantiate parts of the total coping process. The author goes on to assert that the gathering of new information might constitute a basis for reappraisal of the situation that results in a new decision. Hence, it would be incorrect to view this as a “static stimulus-response, but rather a continuous flow of actions and reactions” (Lazarus, 2006, p. 14). Lazarus (2006) has recently come to emphasize the role of emotions during appraisal and coping processes stating that “emotions reflect the way we believe things are going for or against us” (p. 17) which thus are not to be viewed as irrational but rather rational. However, the author also notes the risk of intense emotions impairing adaption. In my contextual approach, appraisal and coping are viewed as processes rather than traits or styles, such as leadership-environment because interactions are assumed to change over time and in different circumstances (Folkman & Lazarus, 1985).

Person and situation antecedents of coping in a humanitarian aid and military context

It was not until 1999, when complex humanitarian emergencies came to involve “new” problems such as, war, ethnic conflict, famine, endemic diseases, and political unrest that scholars began to recognize psychological impact and support of humanitarian aid workers (Janz & Slead, 2000). So being the case means that there is limited know-how on how to prevent and cope with extreme situations. For example, humanitarian aid workers are not introduced to the same pre-deployment training as military personnel (Hearns & Deeny, 2007). However, there is research that puts emphasis on individual factors in terms of demographic characteristics, traits, experience, and specific competence (e.g. personality, fitness, fatigue, flexibility, adaptability, etc.) that are identified as affecting coping ability (McCall & Salama, 1999; Paton and Flin, 1999; Shepherd & Hodkinson, 1990). One study suggests self-destructive behaviour to be a positive quality: “Some situations require people who can
destroy themselves and thrive on chaos... at times we have employed workaholics or alcoholics” (McCall & Salamas, 1999, p. 114).

In contrast, other research emphasises the positive effects of psychological support, where it is reported that organisational features tend to be underdeveloped when it comes to promoting psychological support. Social support is also proven to promote coping (Bjerneld, Lindmark, Diskett, & Garrett, 2004; Shepherd & Hodkinson, 1990; Walkup, 1997). However, as aid workers tend to be deployed on an individual basis, they usually lack the support of cohesive working groups (McCall & Salama, 1999). Organisational factors for coping with stressful situations are described as incident management and control, co-ordination and team work, appropriate communication and information, decision making systems, and having response management capability (Paton and Flin, 1999). Less favourable coping strategies are reported to involve non-constructive activities, for example, an increase in the use of substances, such as tobacco, caffeine, and alcohol (Adams & Adams, 1984; Walkup, 1997).

Turning to a military context, individual characteristics (e.g. attachment style, resilience, hardiness, etc.) are, similarly to the humanitarian aid context, reported to facilitate coping as well as realistic and appropriate training prior to deployment in order to guarantee psychological readiness (Bliese, 2006; Limbert, 2004; Mikulincer & Florian, 1995; Bartone, 1999, 2006). Cohesion or social support and confidence in subordinates as well as wellness behaviours, when environmental demands increase are also reported to have a positive effect on coping (Hicklin, 2003). Leader behaviours are thus shown to influence stress impact. For example, if the military leader suffers from negative stress, it can jeopardize the effort of reducing the impact that stressors have on soldiers and subsequently also the effects of negative stress (Britt et al., 2004). Coping strategies that make the individual not to have to confront a problem, for example, denial or mental disengagement are reported to have worst effects on well-being as this puts individuals at a greater risk of experiencing mental health problems (Johnsen, Laberg, & Eid, 1998; Limbert, 2004).

In sum, the literature on effective coping strategies in a humanitarian aid and military context usually refers to antecedent individual and organisational features promoting effective coping. This research appears to lack the processual perspective. From my contextual approach, organisational factors mediating for coping should be understood as factors in the leadership environment that might be supportive or preventive of the leadership assignment.
Stress responses

Emotional and cognitive stress reactions

Research shows that civil and military leaders execute their leadership assignments in conditions placing them at risk of experiencing traumatic and daily cumulative stress (Kavanagh, 2005; McFarlane, 2004; Michel, 2005). Stress responses among military personnel have been given scholarly attention for a long time, whereas the attention to psychological responses in humanitarian aid professionals have just recently attracted interest, as disasters are increasingly viewed as complex humanitarian emergencies. Still, it is argued that humanitarian aid workers show remarkable resilience and ability to adjust to environmental demands (McFarlane, 2004). Even though demands or stressors differ in nature they have shown to produce similar physiological responses to external events (e.g. demands, stressors, etc.) (Seyle, 1936). Correspondingly, studies on stress in humanitarian aid professionals display similarities to stress responses found in military personnel (Hearns & Deeny, 2007).

The scholarly community has more or less agreed on stress as being a general activation of the brain resulting in a state of alertness. Selye (1936) introduced the term General Adaption Syndrome (GAS) that comprises three different stages: the alarm reaction, the resistance stage, and the exhaustion stage, which taken together, is described as “normal” activation or an alarm reaction that is often interpreted as a warning signal evoking discomfort (Arnetz & Ekman, 2006).

Turning to research within a humanitarian aid and military context, scholars tend to emphasise stress responses of leaders during deployment in the low-level field area. This literature comprises various stress responses that range from being positive to negative, weak to strong, and short-term to long-term (Bravo et al., 1990; Lazarus, 2006; Kavanagh, 2005; Musa & Hamid, 2008; Paton & Flin, 1999). Examples of positive responses are, the individual becoming alert, having faster reactions, increased energy and accelerated thinking skills. Negative stress responses can be acute or chronic in nature. The former tends to impact the entire individual preparing for flight or fight (Eden, 1999; Wallenius, 2001) and are reported to involve states of paralysis, hyper-vigilance, shock, impaired ability to speak, hear, and see; partial loss of cognitive functioning, etc. (Hicklin, 2003). Cumulative stress, on the other hand, affects people progressively evoking anger and feelings of powerlessness as the individual becomes anxious, restless, and irritated (Kavanagh, 2005; McFarlane, 2004; Michel, 2005). In turn, acute and chronic reactions involve cognitive
and/or emotional dimensions. Cognitive reactions are reported to affect individuals’ cognitive ability, e.g. making individuals screen out peripheral stimuli (Easterbrook, 1959; Janis and Mann, 1977; Kavanagh, 2005; Wallenius, 2001), make decisions based on rules of thumbs and guidelines (1992; Klein, 1996), suffer from performance rigidity or narrow thinking, and lose their ability to analyze complicated situations and manipulate information (Flin, 1996; Flin, Salas, Strub, & Martin, 1997; Friedman & Mann, 1993; Kavanagh, 2005; Klein, 1996; Orasanau, 1997; Orasanau & Backer, 1996; Sheperd & Hodkinson, 1990; Wallenius, 2001). Examples of emotional reactions are feelings of discomfort, depression, fear, anxiety, anger, shame or guilt (Cardozo & Salama, 2002; Kavanagh, 2005; Horn, 2004; Sheperd & Hodkinson, 1990; Wallenius, 2001). Feelings of vulnerability are reported to be particularly common with regard to risks during military deployment (Wallenius, Larsson, & Johnasson, 2004) or fear of losing control of one’s own aggressiveness (Johansson, 1998), while non-directed anger, intrusive thoughts, and fear of the future have been found in humanitarian aid professionals (Omidian, 2001).

Humanitarian aid workers are also at risk of the so called “mirror effect”, as they tend to take on the same reactions as primary victims (Shepherd & Hodgkinson, 1990). A great deal of research has also been conducted on post-traumatic stress syndrome in both humanitarian aid workers and war veterans, which interferes with life functioning in general (see for example, Eriksson et al., 2001; Fullerton, Ursano, & Wang, 2004; Kavanagh, 2005; Koopman, 1995; McFarlane, 2004; Michel et al. 2003; van Ommeren, Saxena, & Saraceno, 2005). However, post-traumatic stress syndrome falls outside the scope of the studies included in this thesis.

Previous research on stress reactions can be summarized as explicating civil and military responses during deployment in the low-level field area. Hence, the counterpart at higher organisational levels is not similarly scrutinized.

**Moral stress reactions**

As noted above, the scholarly community has begun to emphasise stress reactions with regard to situations of extreme environmental demands that involve moral dilemmas. These situations are asserted to result in a specific kind of stress reaction at the individual level, which has been labelled moral stress (Corely, 2002; Jameton, 1984). Moral stress is defined as “painful feelings and/or psychological disequilibrium that occurs when [nurses] are conscious of the morally appropriate action a situation requires but cannot carry out that
action because of institutional obstacles” (Jameton, 1984, p. 6). In general, moral emotions are described as shame and guilt while moral stress reactions, with regard to health care professionals, are reported to involve feelings of troubled conscience, guilt, inadequacy, frustration, loss of self-worth, depression, nightmares, suffering, anger, resentment, sorrow, anxiety, helplessness, and powerlessness (Glasberg et al., 2006; Zuzelo, 2007). Moral stress is, on the one hand, essential for maintaining moral awareness while, on the other hand, brings with it a risk of moral distancing, making discipline deteriorate.

Being exposed to situations that are deeply inconsistent with one’s own deep moral convictions might result in lasting emotional, psychological, behavioural, spiritual, and social injuries. Even though there are studies that touch upon long-term suffering due to moral demands within a military context, for example, moral pain (Friedman, Schnurr, & McDonagh-Coyle, 1994), moral injury and moral repair in war veterans (Litz et al., 2009), it is surprising that given the general character of moral stress in a broad spectrum of working-life settings, research focus has been limited to the effects of such stress on health care professionals (see for example, Austin, Kagan, Rankel, & Bergum, 2007; Corley, 2002; Elpern, Covert, & Kleinpell, 2005; Georges & Grypdonck, 2002; Hamric & Blackhall, 2007; Johns, 1999; Lützen, Cronqvist, Magnusson, & Andersson, 2003; Mobley, Rady, Verheijde, Patel, & Larson, 2007; Pendry, 2007; Schoot, Proot ter Meulen, & de Witte, 2006; van der Arend & Remmers-van den Hurk, 1999; Wolf & Zuzelo, 2006; Zuzelo, 2007)

From this we can learn that moral stress has been neglected with regard to stress research, emphasising professionals within a humanitarian aid and military peacekeeping context.

**Stress and performance**

All stress reactions arise for specific purposes and are ultimately aimed at survival. However, stress reactions influence performance in both positive and negative directions as they include both physical impairments and cognitive reactions (Kavanagh, 2005, Wallenius, 2001). Historically, stress has been synonymous with distress, making the concept related to negative connotations while positive effects have remained ignored for a long time. Today, many argue that stress helps individuals to achieve more. Positive stress reactions are thus suggested to have positive psychological consequences such as, heightened
awareness and strength that might improve performance by enhancing an individual’s ability to make decisions in harsh circumstances.

Kavanagh (2005) states that positive stress effects are central to the military as some operations most certainly would benefit from moderate stressors, simultaneously pointing to the dangers in military personnel experiencing boredom. Likewise, expectations of positive reactions to disaster work might be valuable as a coping resource (Paton, Smith, & Violanti, 2000). Even so, there are many critics who consider stress reactions as being positive in nature because stress in general affects the human body negatively (Larsson & Kallenberg, 2006; Lazarus, 2006; Paton & Flin, 1994) making performance deteriorate (Horn, 2004; Paton & Flin, 1999). Previous research shows, for example, how work stress and depression tend to result in impaired work performance, absence from work due to illness, poor physical health, and negative perceptions about supervisors and commanders among military personnel (Baddeley, 1972; Pflantz & Ogle, 2006). The risk of distressed aid workers should also be noted as this tends to affect the people they seek to serve negatively (McCall & Salamas, 1999) while military leaders suffering from negative stress might jeopardize the task of reducing the impact of stressors on soldiers and subsequently also the effects of negative stress (Britt et al., 2004).

Some scholars assert that the relationship between stress reactions and performance is linear (either positive or negative), while others insist it comprises of an inverted U-shape (Yerkes & Dodgson, 1908). The latter viewpoint holds that performance will be lower at low and high levels of stress impact and optimal at moderate levels. Accordingly, it is assumed that increased stress will result in increased performance up to a point. Having reached this point however, stress overload will make performance deteriorate. A high level of stress is thus apt to make arousal counterproductive to task performance. The inverted U-curve is reported to be most appealing to stress scholars in explaining the relationship between and stress and performance (Muse, Harris, & Field, 2003).

For the purpose of this thesis we can learn that stress responses might have both positive and negative psychological consequences. The relationship between stress reactions and performance is described as either linear or an inverted U-shape. The different perspectives have consequences for the way in which stress responses can be viewed; as either adaptive or maladaptive with regard to restoring system balance.
Summary

It is assumed that there are no simple explanations for understanding stress. As emphasis is put upon leadership and environment interactions, my contextual approach builds on the relational-based definition of stress. The theoretical models on appraisal and coping are relevant for the issues investigated in this thesis as they provide a processual perspective on leadership and environment interactions. Lazarus’ concept of re-appraisal resembles the contextual notion of re-adaption and is suggested to be particularly useful for assessing leadership and environment interactions. The view on problem and emotion-focused coping as non-separable elements additionally points to complex interactions taking place.

In keeping with previous research, stress is viewed as dualistic because it both promotes and threatens survival. In the light of my contextual approach, challenges are assumed to give rise to adaptive and functional reactions by improving performance towards restoring system balance, while threatening and overwhelming situations instead produce maladaptive and dysfunctional reactions making performance deteriorate, thus hindering leader adaption to the environment. From such a viewpoint, coping bears reference to leader interaction strategies aimed at maintaining or re-establishing the equilibrium within the system at large. Hence, adaption struggles that evoke stress responses can be either supportive or preventive of the leadership assignment.

While previous research mainly emphasises stress responses of civil and military professionals working at lower hierarchical levels, stress literature appears to neglect inter-level considerations. Moreover, the notion of moral stress seems to be overlooked with regard to the conduct of international humanitarian aid and military peacekeeping operations.
Methodological considerations

This chapter will start out by presenting earlier approaches to research on leadership as a background for a more detailed description of the methods used in the studies that are included in this thesis.

For a long time, leadership research was inspired by positivistic or neo-positivistic assumptions and methods, pursuing “objectivity, neutrality, procedure, technique, quantification, replicability, generalization, discovery of laws, etc.” (Alvesson, 1996, p. 455). However, in the late 80s, leadership scholars began questioning and criticizing the emphasis on quantitative methods for the study of leadership by accusing traditional “truths”; the academic promotion system and qualitative studies being time-consuming and complex and thus neglecting the advantages of qualitative approaches. Qualitative research is increasingly viewed as “the methodology of choice for topics as contextually rich as leadership” (Conger, 1998, p. 107), making leadership research characterized by far greater methodological diversity (Bryman, 2004; Conger, 1998). While quantitative approaches are accused of putting an over-exaggerated focus on input-output models, qualitative approaches are suggested to be better in exploring a wider range of contextual variables, apart from being grounded in leader experiences (Bryman, 2004; Bryman, Bresnen, Beardsworth, & Keil, 1988). Although quantitative approaches do emphasize situational factors in effective leadership they are asserted to address generic aspects of contexts (Bryman, 2004), while overlooking the influential role of organizational and environmental factors and for being poor at measuring interaction (e.g. uni-directional) (Bryman, 2002; Lantis, 1987; Lincoln & Cuba, 1985) – two complex phenomena that are at the heart of this thesis. Even so, the positivistic paradigm still seems to endure as the hegemonic paradigm (Bryman, 2004; Bryman et al., 1996; Conger, 1998; Kempster & Parry, 2011). Taken together, it is argued that qualitative research should play an essential role in leadership studies as it allows for “building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting” (Creswell, 1994, p. 2).

Looking more closely at the prominent qualitative approaches to leadership studies, the single case study has dominated with a shift to the multiple case study or cross-sectional research designs, allowing for scholars to draw theoretical inferences to a larger extent (Eisenhardt, 1989). Bryman et al. (1996) have identified four different types of qualitative research designs: (1) the detailed case study of a single organization and leader, using participant
observation, semi-structured interviews, and the examination of documents for the gathering of data, (2) the multiple case study design referring to detailed examinations of leaders in a small number of organizations aimed at comparisons between cases (semi-structured interviews), (3) a larger number of leaders that are interviewed (semi-structured interviews) on subjects, for example, leadership practices, and (4) detailed descriptions of specific leaders or leadership practices in general. The studies included in this thesis, apart from the fourth validation study, fall within the realm of the third qualitative sub-category. Leaders have been interviewed on subjects related to their leadership practices during the conduct of international humanitarian aid and military peacekeeping operations.

**Grounded theory approach (GTA)**

Above, it was noted that the positivistic paradigm still rules the hegemony of how to approach leadership in research. The studies included in this thesis are based on an alternative paradigm, more specifically an explorative grounded theory approach (GTA), as there is an observable lack of research focusing on leadership and environment interactions at higher organisational levels both within humanitarian aid and military contexts as well as in research on moral stress.

The underlying rationale for choosing a grounded theory approach is that study one, two, and three put emphasis on leadership processes and their conditions with the aim of contributing to the understanding of leadership within particular substantive contexts. Another argument for choosing a GTA is that even though the method is not processual in nature, “it lends itself to processual analysis quite readily” (Hunt & Ropo, 1995, p. 381, see also Dansereau, Yammarino, & Markham, 1995; Hunt, 1991). As the studies also address multi-level differences and use a process-over-time perspective (before, during, and after), GTA is a relevant method by “building in varying levels of analysis as an integral part of the process” (Hunt & Ropo, 1995, p. 406) while at the same time addressing aspects of temporality (Hunt & Ropo, 1995). In sum, GT was the choice of approach to three of the four studies in this thesis as it is explorative, emphasises substantive contexts, processes, multi-level differences, and temporality.
The realm of GT - objectivist and social constructivist positions

The constant comparative method of Grounded Theory (GT) was first formulated and introduced by Glaser and Strauss (1967). This inductive method aims at generating theoretical frameworks that are to explain data. Categories and their properties are thought to emerge when comparing data with data, and category with category (Glaser, 1992). The theoretical foundations underpinning the method have been reformulated from being more post-positivistic to a more constructive paradigm (Strauss & Corbin, 1998). Strauss and Corbin (1998) still acknowledge the objective external reality but argue that the GT process instead gives voice to the individual respondent’s view of reality. Thus, they question the ability to attain valid and reliable data through the constant comparative method and if it is at all to be considered as verificational (Charmaz, 2003).

Glaser (1992) gives criticism to the reformulation and states the risk of forcing data and analysis through their preconceptions, analytic questions, hypothesis, and methodological techniques. He states that “Categories emerge upon comparison and properties emerge upon more comparison. And that is all there is to it” (Glaser, 1992, p. 43). He goes as far as to accuse Strauss and Corbin of providing conceptual descriptions only, rather than grounded theory, as GT generates theory, it does not verify it (see e.g. Bryant & Charmaz, 2010, for a recent overview of different GT approaches). As GT aims at theory generation it becomes central to explicate my view of theory that applies to the studies included in this thesis. My view of theory, based on GT assumptions, will be presented and discussed below.

Theory formulation

The aim of GT is theory generation (Strauss & Corbin, 1994). Compared to positivist methods, GT is, for the most part, an inductive process. Hence, GT rejects simple causality and de-contextualisation of data since the world is regarded multivalent, multivariate, and connected. As GT aims at theory generation, it does not only seek to formulate ideas but also to establish how various concepts relate and co-variate in a theoretical model. According to GT assumptions, theory owns the following features:
1) Theory is emergent rather than predefined and tested
2) Theory emerges from the data rather than vice versa
3) Theory generation is a consequence of, and partner to systemic data collection and analysis
4) Patterns

GT may take different forms, for example, being a “well-codified set of propositions or a running theoretical discussion, using conceptual categories and their properties” (Glaser & Strauss, 1967, p. 31). Hence, along the path towards a grounded theory, formulations such as, conceptual maps or templates may provide a stimulus to a good idea or give initial direction in developing relevant categories and their properties and possible modes of integration. GT may generate two different forms of theory: substantive or formal theory. The former refers to “a substantive or empirical area of sociological inquiry”, whereas the latter adheres to “a formal or conceptual area of sociological inquiry” (Glaser and Strauss, 1967, p. 32). These theories might be related as “a substantive grounded theory at conceptual level may have important general implications and relevance, and become almost automatically a springboard or stepping stone to the development of a grounded formal theory” (Glaser & Strauss, 1967, p. 79).

Even though GT aims to generate theory, theory generation must emerge from the data in an unforced manner. Accordingly, it is required that the researcher possesses resistance to premature formulation of theory. Hence, GT is about finding the proper ground for theory, not creating a complete theory. “Theory is an ever-developing entity, not a perfected product”, a process that might be published solely as a momentary product (Glaser & Strauss, 1968, p. 32).

Universal applicability of empirically grounded models

Qualitative research has been criticized for its low level of replicability. The main arguments concern the criteria of validity or trustworthiness of qualitative research (see, for example, Cho & Trent, 2006; Kirk & Miller, 1986; Kvale, 1997) due to researcher bias, lack of representativeness, and general applicability (Kuhn, 1970; Kvale, 1989, 1995). Also, its dualistic nature is asserted to cause difficulties, as it does not distinguish between the subjective and objective reality (Szklarski, 2002). Replication and inter-subjectivity are claimed to compromise validity in qualitative research (Borg & Gäll, 1989).
According to Bryman and Bell (2003) though, replicability never was and never will be a criterion of qualitative research, which is why these accusations are inappropriate. Another view on validity in qualitatively developed models is that there are advantages to be gained by combining them with quantitative methods for theory testing purposes. Such a combination of research design is being regarded as fruitful (e.g. triangulation) in order to see how far the ensuing data are mutually reinforcing (Antonakis et al., 2004).

Three of the four studies in this thesis used a grounded theory approach for analysis. Hence, in terms of providing generalisable evidence, results have limited value. As this was inherent in the chosen qualitative method, there was a need to test its universal applicability. The conventional research process when testing and validating empirically grounded models is to operationalise them into questionnaires (surveys) to create the means to test quantitatively (logico-deductive model).

However, by the time of validation of study number one, the civil contingencies agency that was previously studied had undergone extensive organizational changes, making a quantitative validation unfeasible with respect to the validity criteria. An alternative, but less frequently used way of action would be to test theoretical models that had been developed qualitatively by making them the starting point for a qualitative reanalysis. Worth noting is that the originators of grounded theory, Glaser and Strauss (1967) also emphasised this opportunity:

By contrast, the constant comparative method cannot be used for both provisional testing and discovering theory: in theoretical sampling, the data collected are not extensive enough and, because of theoretical saturation, are not coded extensively enough to yield provisional tests, as they are in the first approach. They are coded only enough to generate, hence to suggest, theory. Partial testing of theory, when necessary, is left to more rigorous approaches (sometimes qualitative but usually quantitative). These come later in the scientific enterprise. (Glaser & Strauss, 1967, p. 103)

Testing the trustworthiness of the empirically grounded model developed in study one was conducted on the basis of primary data of well-documented studies of management of similar crises or disasters (Alvinius, Danielsson, & Larsson, 2010; Sjöberg, Wallenius, & Larsson, 2006). The validation process relied upon repeated tests of the empirically grounded model through reanalysis of three studies on large-scale and complex operations. Put in slightly different wording, the theoretical target model constituted an analytical framework tool that was to explain the incidents of the reference studies.
Summary of thesis papers

Paper 1. A civil contingencies agency management system for disaster aid: A theoretical model

Background

In the late twentieth century, the propensity of both natural and man-made disasters occurring worldwide rose significantly (EM-DAT, 2008; Sixth Annual Conference of the International Emergency Management Society, 1999). The prospect of handling disaster and crisis-like events in the future is suggested to depend on flexible and well-functioning response systems at various hierarchical levels. Nevertheless, the amount of research into disaster management has notably decreased since 2003 (Lettieri, Masella, & Radaelli, 2009) in spite of a need for theoretical perspectives with a more integrative and holistic approach. As a result, a theoretical model of a civil contingencies agency management system for disaster aid executing humanitarian aid and rescue operations following disasters in an international context was developed (Nilsson, Sjöberg, & Larsson, 2010).

Aim

The purpose of this study was to develop a deeper theoretical understanding of a civil contingencies agency that, as part of its ordinary task, executes humanitarian aid and rescue operations following disasters in an international milieu from a management perspective.

Method

Owing to a lack of previous research on civil contingencies agencies working regularly in an international context, the participants were selected on the basis of an explorative grounded theory approach. Eighteen informants participated. A majority worked within the international department (the unit of the Swedish Rescue Services Agency, SRSA, conducting international aid and rescue operations) and held leadership roles in relation to the different sections of the department as well as operative personnel. Common to all informants working in organizations or institutions other than the SRSA, was their day-to-day work commitment to the humanitarian activities of the international department,
SRSA. Data were collected by qualitative semi-structured interviews following a prepared interview guide.

**Results**

The results show how the management of a civil contingencies agency executing humanitarian aid and rescue operations internationally can be understood as a system consisting of underlying conditions, the operation, and finally, the outcome. A summary of a model, developed from the results, is presented in Figure 1.
The hierarchical model is to be understood from a top-down perspective, starting with underlying conditions. The category internal activity refers to the management system itself in a national context. The theoretical model suggests that the management system is influenced by contextual factors that have been
labelled basic prerequisites and external collaboration. The arrows in the model illustrate influential and interrelated processes, as identified in data. The internal activity of the management is, apart from contextual factors, also subject to internal processes of the inner life of the management itself. These factors refer to structure, leadership, competences/experiences, and organisational culture/climate. When combined, underlying conditions are suggested to affect the execution of operations in the field.

The Operation shifts focus to the international context. The operation is characterised by different conditions/aspects that can be placed on a time dimension before, during, and after the operation. Within each of these time horizons, the management of the operation can be understood in relation to two core variables: the underlying rationale of the management system/the aim of the mission and the resource structure of the operation. These factors may be both favourable and unfavourable to the operation depending on the situation.

The underlying rationale or the intention that governs the actions of the management during an operation is twofold: partly the efficiency aspect, partly the humane aspect. Efficiency applies to optimal goal fulfilment. On the other hand, the intention of the humane side comprises a respectful or sympathetic attitude towards those who suffer, and towards the organisation's own people, as well as those from other organisations. The resource structure of the operation can also be understood in terms of two qualities: person-related qualities and physical, administrative, and material-logistic-related qualities. Person-related qualities refer to the personnel involved in the operation. The other quality is the objective availability and quality of the physical, administrative, material-logistic resources. The model (Figure 1) consists of a cross-tabulation of these two core variables. The final part of the theoretical model concerns the outcome of an operation in terms of optimal goal fulfilment and the organisation's ability to learn from experiences.

To conclude, we can learn that the civil contingencies agency is embedded in an environment characterized by great complexity. The suggested theoretical model is new and can be regarded as a context-specific contribution to complex systems theories of organisations.
Paper 2. Moral stress in international humanitarian aid and rescue operations: A grounded theory study

Background

The primary objective of humanitarian assistance is to meet human needs. In keeping with the humanitarian imperative, the helping professions have introduced a core element or ethos to protect human life or mitigate the distress of those in need. People in the helping professions are assumed to frequently encounter morally problematic situations characterized by more than one right thing to do. Dilemmas like this are likely to result in a specific kind of stress reaction at the individual level, which has been labelled moral stress (Corley, 2002; Jameton, 1984). It is surprising that, given the general character of moral stress in a broad spectrum of working-life settings, research focus has almost exclusively been limited to the effect of such stress on health care professionals.

Aim

The aim of the study was to gain a deeper theoretical understanding of moral stress among humanitarian assistance professionals in an international milieu.

Method

As there is an observable lack of earlier research focusing on moral stress in a humanitarian aid operation context, informants were selected on the basis of a grounded theory approach. Sixteen informants participated, all being committed to the execution of international humanitarian aid operations of the Swedish Rescue Services Agency (SRSA). The informants were the same as those participating in study one.

Results

The results were summarized in a theoretical process model of ethical decision making during acute situations from a moral stress perspective. It consists of seven superior categories: Disaster/humanitarian crisis situation, contextual conditions affecting the operation, interpretation of contextual conditions, decision-making strategy, deliberations, task outcome of chosen act, and moral
stress reaction. The model illustrates a process that, under certain conditions, may lead to moral stress, shown in ideal typical form in Figure 2.

Figure 2. Ethical decision making from a moral stress perspective during acute situations.
The first category refers to the emergency event itself, such as a disaster or other kind of humanitarian crisis situation, an obvious condition for an aid or rescue operation. A number of contextual conditions affect the aid or rescue operation. These include formalities, the "objective/hard" reality; culture, the "subjective/soft" reality; safety aspects, and the media.

The typical humanitarian assistance professional is shown to act as a filter of this framework by interpreting the meaning of these conditions. This appraisal process results in a position on a continuum ranging from understanding the situation as compatible with one's inner moral guidelines to evaluating it as having obstacles in these respects. In the first case, there will be no moral stress. When the situation is interpreted as problematic, a morally challenging decision-making process begins. A core initial aspect of this is to seek mandate and support from one's superior. If this is received, there will be no moral stress according to this ideal typical model. On the other hand, if such support is not received, the humanitarian assistance professional must make an active choice, be aware of the risks of acting contrary to what is expected given the current contextual conditions, and, in those cases, return as soon as possible to the expected course of action.

The next step in the model is task outcome, when the humanitarian assistance professional has acted in accordance with his or her inner moral conviction but contrary to what the contextual conditions suggest. If the outcome is successful, one may avoid moral stress, but this is not self-evident, and in these cases one may suffer from negative stress reactions. When one's choice of action results in a task outcome that is not successful, a stress reaction occurs that can be labelled as moral stress. This is characterized by experiences of insufficiency, powerlessness, meaninglessness, and frustration.

It seems as if hierarchical differences exist with regard to moral stress. At higher organizational levels, leaders are inclined to experience insufficiency while their counterparts at the low-level end of the hierarchy suffer instead from experiencing powerlessness, meaninglessness, and frustration.

From this study we can learn that contextual conditions many times are interpreted as hindering task completion because they are appraised as incompatible with leaders' inner morals and perceptions of the humanitarian assignment. There is thus an imminent risk of leaders within a humanitarian aid and rescue context to be affected by moral stress.
Paper 3. “When the going gets tough, the tough get going” - senior leader stressors and challenges in a multinational environment

Background

The Swedish Armed Forces have been quite well-represented in international military peacekeeping operations for many years. Following the end of the Cold War and a dramatic alteration of the threat scenario, this tendency has been increasingly salient. Such an inclination has brought about a growing number of high-ranking Swedish officers within international staffs, which in contrast to Swedish engagement at lower hierarchical levels abroad, is a comparatively new phenomenon. Serving as a high-ranking officer in an organisational context that differs from the lower end of the international military organisation is assumed to bring about physical and psychological stressors that hold other qualitative meanings in comparison to those affecting soldiers in the field. Despite a wealth of literature on stressors and challenges, there seems to be a void of data covering the equivalent stress situation of high-ranking officers.

Aim

This study aims at bringing order into the various stressors and challenges experienced by Swedish high-ranking officers as compared to those experienced by military personnel serving at the lower levels of the military hierarchy.

Method

Nine Swedish officers who have served in high military posts abroad were selected for interviews. They have military rankings that vary from lieutenant-colonel to major-general. All participants were men who had acquired a solid military education and four out of nine had served abroad prior to the operations described in this study. The interviewees were asked to give an account of the most stressful incident they had experienced during their assignment. The analysis was undertaken in accordance with the constant comparative method by Glaser and Strauss (1967).
Results

This study shows that there is a multifaceted spectrum of stressors at executive or strategic level, which appear to differ markedly when compared to those affecting soldiers at lower levels of organisation, in terms of stressors and challenges causing both cumulative and acute stress reactions. The study gives empirically rich examples of cumulative stress arising from intercultural frictions, great pressure or monotony as an everyday condition, besides extreme climate and poor environmental conditions. Acute stress is reported with regard to the requirements of rapid decision making processes in terms of deficiencies in the staff working process, loneliness, conflicts of loyalties as incentives to the breaking of rules, lack of adequate resources, multicultural organisation structures in terms of undermining efficacy, and stress reactions related to the responsibilities of subordinates, e.g. the need for a macho attitude of strength and stoicism. Even though there are differences regarding the very stressors affecting leaders at lower and higher levels respectively, stress reactions are shown to exhibit great similarities.

From this study we can learn that there is a need for multilevel analyses of stressors in international military peacekeeping operations and that stress management interventions may be generally applicable.

Paper 4. A civil contingencies agency management system for disaster aid: Qualitative validation of an empirically grounded model

Background

Following up on the results from study one, study four addresses issues of validity related to the theoretical model of a civil contingencies agency model management system for disaster aid which was developed in that study.

Aim

The aim of this article was twofold: (1) validation of the theoretical model of a civil contingencies agency management system, and (2) methodological development by employing qualitative means for analysis.
Method

Testing the trustworthiness of the empirically grounded model was conducted on the basis of the primary data of well-documented studies of management of similar crises or disasters (Alvinius et al., 2010; Sjöberg et al., 2006). The validation process relied upon repeated tests of the empirically grounded model through reanalyses of the three aforementioned studies of large-scale and complex operations. Put in slightly different wording, the theoretical target model constituted an analytical framework tool that was to explain the incidents of the reference studies. Thus, the explanatory ability of the theoretical model was tested.

Results

The superior categories of the theoretical model of a civil contingencies management system for disaster aid show great similarities when compared to the selected reference incidents, in terms of illustrating the same overarching pattern. The results indicate high stringency between the theoretical model and the reference studies concerning all dimensions of the superior category “underlying conditions” and, in general, at category level.

The categories “goal fulfilment” and “learning from experiences” also show high trustworthiness with regard to all reference studies. Hence, the aspects underpinning the superior categories “underlying conditions” and “outcome”, are probably relatively stable and not as situation-specific as those substantiating the superior category “before, during, and after an operation” which are apt to explain more mainstream findings. In sum, most categories are substantiated by the reference studies, independent of the nature of the crisis/disaster.

The code “geographical location” (underpinning “basic prerequisites”) was however removed, while the code “financers” (underpinning the category “external collaboration”) was reinterpreted and recoded to “contributing organisations”. In sum, the theoretical model of a civil contingencies agency management system appears to serve in explaining most managerial aspects of the selected reference studies. Ultimately, this means that the suggested theoretical model can be regarded as having reasonable trustworthiness with regard to the aforementioned incidents.
Summary and discussion

The prevalence of complex humanitarian disasters has increased since the late 1970s (Eriksson et al., 2001) whereas “the military is undergoing substantial change as it adjusts to the changing nature of war and a fluid world situation” (Wong et al., 2003, p. 657). In keeping with this, the dramatic alteration of the threat scenario was assumed to conjure up a need for complex, rapidly changeable, and environmentally dependent organisations with highly skilled leaders for a great degree of flexibility.

This thesis has pursued an integrative view in seeking to understand leadership and environment interactions during the conduct of international humanitarian aid and military peacekeeping operations. Hence, it has been a matter of considering the individual leader in relation to the organisational and the external environment in order to study human adaption to meet the challenges and demands of disasters and conflicts. The findings point towards the leader as a complex adaptive system, being an interconnected part in a highly complex world. Taken together, it is suggested that this thesis can be regarded as a context-specific contribution to complex systems theory by providing insight into the organizational and external environmental factors/demands that influence civil and military leadership.

The leadership environment: A battle field of complex sub-systems

Leadership is highly context-sensitive. Continuous interaction processes characterize the relationship between leadership and the environment during the conduct of international humanitarian aid and military peacekeeping operations. My contextual approach takes its point of departure in systems theory. Depending on perspective, what constitutes the system is bound to differ.

Study number one addresses the leadership environment from a systems perspective, emphasizing the management system of which the individual leader is an inter-related part. Premises for the processes involve a large number of environmental factors that, from a top-down perspective, are shown to affect the management system and, as such, the individual leader correspondingly, as the management system constitutes a framework for leader cognition and action.

The suggested model, based on findings from the study, provides a picture of the management system itself as being an inter-related part of a larger
participative or inter-organizational system (the international supply network for disaster aid), partly influenced by spatial factors (underlying conditions vs. the operation), and partly by space of time (before, during, and after an operation). As such, it touches upon both the proximal and the distal leadership environment, as demands are bound to differ with regard to national and international contexts, besides during the various phases of disaster.

Turning to the time horizons of the operation, a cross-tabulation of two core variables, underlying rationale and resource structure, equally point to the multitude of inter-organizational factors that need to be considered for them to correspond to the external requirements of a given situation. Taken together, the leadership environment comprises a myriad of sub-systems that are continuously subject to change in an ever-ongoing process of which the leader solely accounts for one.

Similarly to study one, study two emphasizes the leadership environment during humanitarian aid operations, but considers a specific case of extreme environmental demands that involves moral dilemmas. Here, both organizational and external environmental factors (e.g. formalities, culture, safety, or media) are shown to undermine leader ability to act in harmony with inner morals and standards. As leaders’ inner morals and standards appear related to their perception of the humanitarian assignment, such incongruence appears problematic, as organisational factors that are expected to facilitate the task assignment many times are appraised as being opposed to humanitarian values.

Both study one and three illustrate hierarchical differences concerning extreme environmental demands. Hierarchical differences have been similarly identified in study three in relation to extreme environmental demands during the conduct of international military peacekeeping operations. At executive level, there is a multifaceted spectrum of extreme environmental demands, which appear to differ when comparing those that affect personnel at the top of the hierarchy with those serving at soldier level. Challenges of operational-related aspects are toned down in favour of those related to an internal complex organisation, such as, culturally distinctive features among leader and subordinates, political dimensions of conflicts, conflicts of loyalties, the risk of juridical consequences or having one’s own decision questioned. Concerning the latter, unmanageability of the situation tends to derive from social threats towards the leader’s own status, self-sufficiency, and feelings of powerlessness. At the top of the hierarchy this tends to leave commanders in the dilemma of
strong cross-pressure, whereas issues at lower levels, to a larger extent, seem to stem from practical concerns.

My contextual approach provides a picture of environmental demands as referring to different kinds of phenomena that receive their meaning in light of the organisational and external environment. As a consequence, study one, two, and three clearly illustrate the need for multi-level considerations when studying environmental demands.

**Leader and environment interactions: The force behind both system disruption and system survival**

Leadership and environment interactions are approached in all four studies. The reappraisal processes in work are shown to involve continuous assimilation processes of, and accommodation processes to the environment, illustrating the shifting balances between environmental forces, organizational pressures, and individual initiative. Hence, both disruptions and survival of the system at large stem from the very interaction processes at hand. In keeping with this, Lazarus (2006) notes that “evolution is not perfect with respect to its adaptional consequences” (p. 11).

Study one accounts for interaction processes between the organisational and external environment in which the leader exists and which influence leader cognition and behaviour, both favourably and unfavourably with regard to task completion. When organizational factors do not correspond to the external requirements of a given situation, this is suggested as pointing to system imbalances, which in turn, are also bound to influence the individual level by evoking discrepancies between demands/ambitions and ability/resources.

The demands-constraints theory may serve in explaining these findings as there is incongruence between the organisational and the external environment. The leader risks system disruptions, if not capable of restoring the system balance by, for example, mobilizing resources to provide the competences required to handle a specific situation. Such stipulations are supported by research that shows how modification of internal factors might reduce the impact of external factors.

Study two addresses leadership and environmental interactions at the individual level. When environmental factors are appraised as opposed to inner morals and standards, this illustrates an imbalance between individual appraisal of demands/ambitions with regard to the perception of the humanitarian assignment and ability/resources to fulfil these, evoking a state of psychological
disequilibrium. These problem and emotion-focused coping processes aimed at avoiding moral stress take place in a paradoxical situation, as the leader juggles sympathy for humane motives and compliance with praxis. Results demonstrate how leaders are often unwilling to accommodate “cognitive schemas that are logically integrated and mutually reinforcing systems of beliefs and values” (Nyström and Starbuck, 1984, p. 64) to situations that are in direct contravention of such deep value systems. Thus leaders are shown to re-appraise the situation in order to find alternative ways to restore system balance, pointing to an inclination to oversee environmental demands, if in parallel coping with inner moral demands. These findings are in line with Lazarus and Folkman (1984) who stipulate that reappraisal of a situation might be more defensive and related to individual needs rather than external circumstances. Results show inter-level differences regarding coping mechanisms as the environment creates specific leadership preconditions.

It is worth noting that, in the specific case of moral stress, the quest for survival sometimes creates a state of opposition to organisational prerequisites, because organisational cultures and structures tend to generate additional demands on leaders, such as, threats towards one’s own career for breaking rules or exposing the leader to potential juridical consequences, which in turn tend to evoke additional system imbalances. These processes are thus highly complex and continuous over time.

Study three also addresses leadership and environment interactions but within a military context. The findings explicate many examples of how leaders appraise organisational factors as incongruent with the requirements of the external situation, continuously resulting in interaction effects, as the leader is subject to system disruptions evoking both positive and negative stress reactions. Two examples are the appraisal of multicultural diversity and the hierarchical climate abroad as continuously strenuous. It is suggested that the dimensional model that was developed in study one might be useful as an analytical framework for understanding interactions processes also within a military context.

**Moral stress reactions exhibit multi-level differences**

The very purpose of stress is to enhance human performance with the utmost aim of survival. Even though some international humanitarian aid and military peacekeeping operations are assumed to benefit from moderate stressors, the quest for survival becomes rather literal during demanding situations, resulting
in negative or maladaptive reactions making performance deteriorate. Hence, adaptive capabilities are challenged. Study two and three emphasise stress responses that arise with the aim of adaption to extreme environmental demands, as it was assumed that stress mobilizes the individual to achieve more in order to restore system balance.

Study three shows how adaption struggles evoke both positive and negative stress reactions. These findings are in line with earlier research as stress reactions exhibit great similarities regardless of hierarchical level, besides indicating a double-edged pattern concerning the overall development of stress reactions as leaders are exposed to acute and threatening situations. The inverted U-shape curve appears to explain the relationship between stress impact and performance. These findings contribute by suggesting that stress management interventions aimed at reducing stress reactions may generally be applicable.

Study two emphasises a specific case of moral stress. Four kinds of experiences were brought forward: insufficiency, powerlessness, meaninglessness, and frustration. According to Lazarus (1991), meaninglessness and frustration (and also helplessness) are regarded as “ambiguous negative states” (p. 83) rather than as emotions. These states are involved in emotions as a preceding appraisal, but they are not emotions themselves. Rather, they describe the evaluation of a given person–environment relationship (Lazarus, 1991). It is suggested that this holds true for insufficiency and powerlessness as well. In further support of this notion, none of the negative states identified can be found in Shaver’s, Schwartz’s, Kirson’s and O’Connor’s (1987) extensive cluster analysis of 135 emotion names. Thus it is suggested that moral stress can be looked upon as a special class of stress reactions in general, and of ambiguous negative states in particular.

In contrast to the assumptions above, holding that stress reactions exhibit great similarities regardless of organisational context, it seems as if hierarchical differences exist with regard to moral stress. At higher organizational levels, leaders are inclined to experience insufficiency while their counterparts at the low-level end of the hierarchy suffer instead from experiencing powerlessness, meaninglessness, and frustration.

Comparing the specific case of moral stress reactions with the more mainstream findings of study three, the former appears to lack the double-edged pattern, as no positive reactions are reported even at moderate levels of stress impact. Even so, moral stress giving rise to moral awareness might, hypothetically speaking, point to positive consequences as the individual
becomes more sensitive to moral aspects of the humanitarian assignment. However, one explanation to why no informant reports positive moral stress reactions might be that acting on inner morals and standards often is opposed to organisational requirements, for example, the breaking of laws and regulations. From an organisational perspective, such juridical offences are most likely not to be perceived as positive consequences of leader performance. However, committing such offences could be understood because of the survival value of moral stress or the adaptive force in staying true to oneself (see for example, Avolio & Gardner, 2005). Nevertheless, the absence of positive moral stress reactions might have implications when it comes to the relevance of the inverted U-shape curve in explaining moral stress. Moreover, a study on moral stress within a military context shows how moral stress (i.e. ambiguous negative states) requires cognitive ability which tend to deteriorate as the individual is struck by acute or traumatic stress reactions in an aggravated situation (Nilsson, Sjöberg, Kallenberg, & Larsson, 2010). Hence, moral stress reactions do not seem to exist during the most acute phase of a situation. Moral stress reactions are rather prone to arise prior to, and after, the acute phase of situations characterized by extreme environmental demands.

Issues of trustworthiness

GT does not only seek to formulate ideas but also to establish how concepts relate and co-variate in a theoretical model. One example of establishing relations among concepts in study one, was the formulation of a cross-tabulation of two core variables consisting of interrelated categories and interrelated categories within them (e.g. a dimensional model) (Glaser’s, 1978). This systems theory conception of interdependence between the four presented dimensions points to key issues, which cannot be resolved on the basis of this qualitative study. Remaining questions refer, for example, to the relative importance of the different dimensions during diverse time segments and in different kinds of humanitarian aid and rescue operations.

However, it could be hypothesized that high quality management, regarding the two efficiency-oriented dimensions (i.e.: person-related qualities in terms of professional task-related knowledge/competences and availability and quality of physical, administrative and material-logistic-related qualities) is necessary but not sufficient for a successful operation. High quality is also needed in relation to the two humane aspects (i.e.: person-related qualities in terms of
social/cultural competences and a socio-cultural atmosphere), although it is insufficient in isolation.

Future tests of the model may provide practitioners with additional guidelines here. However, as the model does not explicitly assess causes and effects it does not yet fulfil the core requirements of a theory in GT terms. Therefore, it might have been somewhat premature having already presumed a theoretical model. The model may be described as a conceptual map that, at best, gives initial direction concerning possible modes of integration of categories and their properties.

The critique mentioned previously might be directed towards the theoretical process model of ethical decision making from a moral stress perspective which was developed in study two. The concepts derived from the data are of a sensitizing rather than a definitive character, as described by Blumer (1954). Obviously, in reality there are a number of potential deviations from the ideal typical sequential model that are presented. Principally, the sources of these can be found within individuals, in the situational context, and in the person-situated interaction of a particular case. Examples of individual-related sources of deviations include psychological resources, personal life, etc. Examples of potential context-related sources of deviations are characteristics of the disaster (e.g., natural vs. man-made, magnitude, etc.), organizational resources and operations that are impossible to solve even for the best. Additionally, the construction of the theoretical process model implies that there are only two relatively clear-cut step-wise procedures to handle a situation resulting in either being affected by moral stress or not. In keeping with the complexity of person and environment interactions, this model is a great simplification of reality that is merely shown in ideal typical form. It should be noted that there are many possible deviations from the leadership and environment interaction processes, for example, individuals skipping or returning to certain steps during efforts to adapt to environmental demands. Thus, the model does not account for all the dynamics inherent in complex person and environment interactions. However, studying the complexity of leadership processes and their conditions requires a certain simplification of reality.

The utmost purpose of validation is to test theoretical concepts and whether the hypothesis made about causes and effects of these concepts is valid. Not having clarified the relations of the different parts of the systems model, which was developed in study one, logically affects the efforts to validate the same in study four, as the core aspects of theory cannot be tested. These shortcomings need to be addressed in future research.
It should also be noted that the validation effort of study four in terms of procedural coding and qualitative comparisons was solely inspired by the inductive approach of GT. As GT generates and does not verify theory, the analysis was more a matter of logic-deductive character, as the procedures aimed at verification of the pre-existing theory had already been discovered and developed. There could also have been a problem that the validation appeared to be focusing upon relatively broad concepts. However, this was not the case. There have been constant comparisons from the lowest level of analysis, e.g. meaning units, up to the level of superior categories.

Study one might have gained from a more thorough description of narratives at lower levels of analysis to enhance the reader's opportunities of scrutinizing the generation of a category in study one, as compared to that of study four. Additionally, it might have been favourable to not only select reference studies involving disasters caused by nature, as an additional contribution of other types of disasters most probably would have provided greater variety. The aforementioned shortcomings might affect the trustworthiness of the research reported.

Theoretical implications

The theoretical starting points in the research reported here are anchored in my contextual approach to leadership and stress. The theoretical implications of the studies included in this thesis are discussed below.

Multi-level considerations to the study of leadership environments

The research reported explicates how leadership needs to be addressed with regard to multi-level considerations. As there are evident differences concerning, for example, hierarchical levels, failure to address such variations might result in inference drawing that is misleading or artifactual. Apart from organisational hierarchical levels, the external environment has similarly proven essential to understand the complexity of the system at large and in explaining leadership processes. Given that the levels of conceptualizations of leadership processes usually refer to the individual, the dyadic, the group, and the organization (Yukl, 2006), the view presented here suggests expanding the paradigm of the contingency models by introducing the external environment as equally important in conceptualizing leadership processes.
Cognition AND emotion as rationales in leader and environment interactions

Leadership and environment interactions have been emphasized. The studies included in this thesis contribute theoretically by illustrating the centrality of coping mechanisms in understanding the choice of specific action alternatives, as leaders continuously re-appraise the environment as a means of avoiding moral stress and adapt to the requirements of a given situation. Findings might convey theoretical implications for decision making theory.

Decision making theory tends to use cognitive explanatory models (for an overview, see Cannon-Bowers & Salas, 1998). By suggesting that assimilation and accommodation processes contain appraisal and coping mechanisms, the results show the importance of emotions, besides cognitions, in leadership and environment interactions. For example, the results of study two demonstrate ambiguous negative states (i.e. states that are involved in emotions as a preceding appraisal) that point to the complex interconnectedness of cognition and emotion. Hence, not only cognition but also emotions appear to become not just rational but a necessary component of survival (Lazarus, 2006). Does this imply adaptation processes also involve assimilation processes of, and accommodation processes to, what one might refer to as emotional schema? The view of emotions as irrational must be increasingly challenged.

Even though not addressed in an explicit manner, the systems theory notion of assimilation and accommodation points to the developmental aspect of leadership and environment interactions, with regard to both past and future situations. This thesis touches solely upon individual and organizational ability to adapt and change, hence learn from leadership and environmental interactions. Turning to the literature, learning and development are often thought of as positive in nature as “the processes they denote are easily thought of as being as harmonious and unproblematic as the outcome” (Wilhelmson and Döös, 2002, p. 101). However, the literature on demands and stress usually approach development in negative terms. It appears crucial to challenge the more or less automatic assumption of, for example, disaster exposure and pathological outcomes, as growth need not “necessarily free an individual from experiencing negative consequences” (Paton et al., 2000, p. 174). For example, a study on moral stress within a military context explicates how leaders are strengthened having experienced morally difficult situations (Nilsson et al., 2010).
Multi-level considerations to the study of moral stress

As a consequence of the contextual approach, moral stress responses seem to be sensitive to multi-level differences. Accordingly, the research reported implies a theoretical need to approach stress research on a basis of multi-level considerations. Also, the results on moral stress containing negative ambiguous states and the uncertain relevance of the inverted U-shape curve in explaining the relationship between moral stress and performance have shown to differ if compared to more mainstream findings. These results might have implications for understanding the stress phenomenon.

Educational implications

The research reported here might constitute a basis for analysis of educational needs for preparing leaders to act in situations of extreme environmental demands. Taken together, future civil and military leaders need education in complex person and environment interactions to get a holistic picture of the underlying mechanisms, thus promoting the development of their adaptive capabilities. Below follows a summary of potential educational measures based on the research results:

- To enhance the understanding of a holistic approach (e.g. psychological, physical, social, cultural, and political dimensions) to civil and military leadership processes during the conduct of international humanitarian aid and military peacekeeping operations. The model developed in study one might serve as an analytical instrument of management aspects of the civil contingencies agency management system, in order to implement evidence-based improvements to this kind of humanitarian aid operations.

- To raise the level of consciousness of moral demands during task completion and the potential stress responses that might arise when not being able to act in accordance with one's own inner morals and standards. A possible pragmatic benefit of the model developed in study two is that it could serve as input for improved education at staff as well as at field levels for individuals engaging in international humanitarian aid operations.

- To promote the understanding of potential demands with regard to multi-level considerations.
The results may also be used as a basis for organisational development. Such suggestions are provided below.

- Despite solely in a secondary manner and not explicitly worded, this thesis indicates what qualities are central when handling and thus coping with extreme environmental demands. Such inputs might serve in adjusting selection procedures and promote the recruitment of stress resilient individuals to leader positions.
- Developing organisational prerequisites (e.g. routines, laws, codes of conduct, etc.) so that they correspond better to the factual requirements of international humanitarian aid and military peacekeeping operations.
- Practical preparations prior to operations need to be organized considering the level-specific stressors and challenges in order to allow for an enhanced mental readiness in both humanitarian aid and military personnel and thus minimize the risk of them being affected by negative stress reactions.

Directions for future research

Directions for future research are further exploration of the integrative approaches of humanitarian aid and military organizations in order to enhance the understanding of their underlying mechanisms. To increase the potential value of using the theoretical model which was developed in study one; it should be tested in the light of trans-national organizations within the private sector or the wider business community.

Further research on moral stress is obviously needed and it may prove to be more than an academic endeavour. Wider knowledge of severe forms of moral stress could contribute to better prevention and treatment strategies. The current high suicide rate among former American and British war veterans from Iraq might be an illustrative case from another field. Continuing the discussion of further research on moral stress, two areas are in need of further exploration. One is related to the issue of individual differences. A second concerns the desirability of a more detailed account of contextual characteristics.

Overall, environmental demands will continue to be a critical area for research within a military context. Due to the Swedish approach of the high-ranking officers in study three, there is a current need for further research into
the stress situation at higher hierarchical levels with regard to other nationalities. It might be valuable to draw on those similarities that one finds when comparing the military organization to other international corporations that are characterized by complexity at the hierarchic top, for example, conflicts of loyalties, impossibility of following rules, and difficulties of communication through organizational levels. Thus, there might be lessons to learn from other contexts as well.

**Final remarks**

The aim of the studies included in this thesis has been to increase the knowledge of civil and military leadership processes and their conditions in situations of extreme environmental demands. I have pursued an integrated view in seeking to understand leadership and environment interactions during the conduct of international humanitarian aid and military peacekeeping operations. In order to study human adaption to meet challenges and demands in disasters and conflicts, the individual leader in relation to organisational and external environments has been considered.

The results show that leadership during these circumstances is a highly complex and demanding task. Premises for the processes involve a great number of environmental factors. In order to restore system balance within a larger system, there has to be congruence between an individual appraisal of organizational and external environments to achieve successful task completion. Inconsistency among the environmental factors may evoke adaption struggles characterized by both positive and negative stress responses which may affect performance and task completion. Reappraisal processes are shown to involve continuous assimilation processes of, and accommodation processes to the environment, illustrating the shifting balances between environmental forces, organizational pressures, and individual initiative.

The findings on stress responses are in line with earlier research, demonstrating that stress reactions exhibit great similarities regardless of hierarchical level, while also indicating a double-edged pattern concerning the overall development of stress reactions. However, differences with regard to moral stress between leaders at different hierarchical positions are found. Furthermore, moral stress appears to lack the double-edged pattern since no positive reactions are reported even at moderate levels of stress impact.

Taken together, the findings imply that future civil and military leaders need education in complex person and environment interactions in order to get a
holistic picture of the underlying mechanisms, thus promoting the development of their adaptive capabilities.
References


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Civil and Military Leadership Processes in Situations of Extreme Environmental Demands

In the late twentieth century, the propensity of both natural and man-made disasters occurring worldwide rose significantly. In 2010, 373 natural disasters were reported with approximately 300,000 casualties, affecting 207 million people. The same year there were 30 armed conflicts taking place. Conflicts alone are asserted to have claimed more than five million lives in the past decade. Leadership is a major factor that impact on human and organizational effectiveness which play an essential role in the successful handling of disasters and conflicts. However, the conduct of international humanitarian aid and military peacekeeping operations takes place in an environment characterized by extreme environmental demands. Both international and Swedish research show that inability to handle environmental demands has resulted in a growing number of stress-related diseases. In the context of international humanitarian aid and military peacekeeping operations, such risks are assumed to be brought to a head as situations are often characterized by demands for minute-operative decisions based on inferior basic data for decision making while a lot is at stake, sometimes even in terms of life and death. The effects of stress on performance are most likely to occur when they can be least tolerable: during critical situations. Thus, the impact of stress on leader performance might be devastating.

The main part of the thesis is based upon empirical data gathered through semi-structured qualitative interviews with Swedish civil and military leaders. The aim of the studies included in this thesis has been to increase the knowledge of civil and military leadership processes and their conditions in situations of extreme environmental demands. The starting point was the leaders’ own experiences of situations of extreme environmental demands in the context of international humanitarian aid and military peacekeeping operations, though with a prime emphasis upon the former. Taken together, the findings imply that future civil and military leaders need education in complex person and environment interactions in order to get a holistic picture of the underlying mechanisms, thus promoting the development of their adaptive capabilities.