Leadership under Severe Stress: 
A Grounded Theory Study

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Abstract

The aim of this study was to develop a theoretical understanding of leadership under severe stress, using a grounded theory approach. Interviews (n=16) were conducted with military officers from Norway and Sweden, soldiers from Sweden, and psychologists from Norway. Data were analyzed according to the constant comparative method. A model was formulated specifying several aspects of task-directed and relationship-directed leadership under severe stress. This leadership can be understood against the background of three interrelated factors: characteristics of the leader, organizational characteristics, and everyday leadership. The significance of trust-building leadership on an everyday basis for the outcome of leadership during severe stress was particularly emphasized.

Introduction

Leadership under stress appears to be a constantly central issue in applied psychology. In his latest review (1990), B. M. Bass lists approximately 200 articles, books, and chapters in books in the chapter titled “Stress and Leadership.” However, leadership under severe stress appears to have attracted less attention. In a recent (January 2000) survey of the literature (PsyLit, from 1887), leadership plus severe stress yielded two references, both dealing with war neurosis. Combining leadership and performance with severe stress, or acute stress, or extreme stress all resulted in null references.

Narrowing the focus to leadership under severe stress from a performance perspective has a strong impact on the amount of existing research. There also appear to be inconsistencies in the available writings. The importance of the leader’s personality characteristics illustrates this. The critical reviews of Stogdill (1948) and Mann (1959) led to a longer period where leader actions, rather than personality traits, came to the fore. However, in recent years, personality appears to have recaptured its legitimacy as an approach to leadership research.

Following from this lack of consistent findings, we concluded that more generative approaches are needed to enhance the understanding of the issue. The aim of the current study was to develop a theoretical understanding of leadership under severe stress from a performance-oriented perspective, using a grounded theory approach.

Method

The method used to facilitate this study is the one known as grounded theory. Persons not familiar with this theory may refer to Glaser and Strauss.

Participants

Participants in the study comprised 16 people. The group of informants included five Swedish officers and three Swedish soldiers who had served for a six-month period in one of the Swedish armored United Nations (UN) battalions in Bosnia from 1993 to 1996. The selection of these persons was based on personal knowledge among research colleagues at the Department of Leadership, the National Defence College, Sweden. We wanted to get in touch with people who had experienced stressful leadership situations, and who could be assumed to be willing and capable of relating their experiences. Following the methodological recommendations of the grounded theory tradition, we wanted to select participants with varying experiences. The group selected therefore represents the entire spectrum, ranging

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from a battalion commander (full colonel) to the ordinary private soldier. All were men, and their ages varied from about 25 to 55 years old. All suggested individuals accepted participation in the study.

The second half of the study group came from Norway. Four officers and a psychologist from the Royal Norwegian Naval Academy took part. All of these were men aged 38 to 44 years old. Three psychologists from the Norwegian Underwater Technology Centre A/S (NUTEC) also participated—two women and a man between the ages of 41 to 47 years old. Characteristic for all the Norwegian participants was that they had had many years of experience in leading exercises where those participating had been subjected to moments of high stress. At the Royal Norwegian Naval Academy, officers undergo extremely stressful exercises. Among other things, NUTEC conducts exercises among crews on ships and on offshore oil rigs in simulated disaster situations. The selection of participants from the Royal Norwegian Naval Academy was steered by a wish from our perspective to have people with extensive and varied experience as exercise instructors. At NUTEC, no selection was carried out; three psychologists worked there and, at the same time, took part in the study.

Data Collection

The collection of data consisted of interviews with each of the study participants. In an attempt to stimulate participants to come up with additional points of view, follow-up group interviews were also conducted at NUTEC and at the Royal Norwegian Naval Academy. The same procedure was impractical in Sweden because these informants lived in various parts of the country. All interviews were conducted by the authors in 1998, and they were based on the themes presented below.

Swedish Substudy. The Swedish officers and soldiers based their facts on their own personal experiences. The following questions were asked:

• Tell us about your own experiences in stressful situations where you played a leading role (for soldiers, stressful situations only).
• What was it about you in situation X that made you (“my superior” for soldiers) handle it well/poorly?
• What in the social context (organization) made things go well/poorly?

Norwegian Substudy. The Norwegian officers and psychologists based their opinions on their participation in simulated stressful situations where they had played the role of an exercise instructor. The following questions were asked:

• Give some examples of severely stressful leadership situations (during exercises).
• What are the characteristics of individuals (commanders) who handle these situations well/poorly?
• What are the characteristics of organizations that handle these situations well/poorly?

Common Follow-up Questions. Added to these initial questions was a series of individually adapted sequential questions of the type “tell me more,” “give some examples,” “why?” and so on. Each interview took about an hour to conduct and record on tape.

As noted above, we did not start from any specific stress situation in the interviews, but with the participants in the study themselves giving examples of severely stressful incidents. Among the situations focused upon can be mentioned armed combat, risks to a colleague’s life or health, the risk of comprehensive material damage and loss, and simulated oil rig disasters.

Analysis

The interviews were transcribed verbatim and consecutively analyzed according to the constant comparative method. Following these guidelines, the first step of the analysis was open coding. Data were examined line by line in order to identify the participants’ descriptions of thought patterns, feelings, and actions related to the themes mentioned in the interviews. The codes derived were formulated in words closely resembling those used by the participants. This was an attempt to maintain the semantics of the data. Codes were compared to verify their descriptive content and to confirm that they were grounded in the data. As a second step, the codes (about 950 in total) were sorted into categories. This was done by constant comparisons between categories; and between categories, codes, and interview protocols. For instance, self-knowledge and several other codes formed the category “Characteristics of the leader.” The third step consisted of fitting together the categories using the constant comparative method. This resulted in a model of leadership under severe stress and the underlying circumstances.

Data collected at later stages in the study were used to add, elaborate, and saturate codes and categories. In practice, the steps of analysis were not strictly sequential. Rather, we moved forward and backward constantly reexamining data, codes, categories, and the whole model. In the following section, the whole model will be described first, followed by a presentation of its parts. The reason for this order is that the parts receive their meaning when understood in relation to the whole model.

Results

A Model of Leadership under Severe Stress

Leadership during severe stress can be understood against the background of a number of interacting factors. Interplay between the characteristics of the leader and the organization shape everyday leadership. These circumstances in combination affect the adaptation that is to take place to meet the demands of a severely stressful situation and the leadership in such a situation (fig. 26).
Characteristics of the Leader

Two main classes of leader qualities could be noticed in the interview responses. They were more general, person-related characteristics and more profession-related characteristics, respectively.

**General, Person-related Characteristics.** Somewhat simplified, the responses indicated that it is easier to command under severe stress if the leader has good physical and psychological capabilities. It was pointed out that it is important to make commanders aware that a lack of sleep, food, or drink can lower the leadership capabilities of a normally resourceful person. Psychological capability refers to having a good spatial ability, good simultaneous capability, and the ability to learn new things quickly.

Several of the responses within the category “general, person-related characteristics” dealt with a commander’s self-confidence, personality, and self-knowledge qualities. The interview responses were mainly about self-knowledge. According to several informants, it doesn’t make all that much difference whether one is extrovert or introvert, as long as one knows one’s strong and weak points. Egocentricity, however, was expressed as a negative tendency; egocentric

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**Figure 26. Model of Leadership under Severe Stress and the Underlying Circumstances**

LEADERSHIP UNDER SEVERE STRESS

- Task-directed leadership
- Relationship-directed leadership

Situational adaptation

Everyday leadership

- Trust-building leadership
- Exercises

Characteristics of the leader

- General person-related
- Profession-related

Organizational characteristics

- Structure and values
- Members

UNDERLYING CIRCUMSTANCES
people were claimed to mainly use their role as a leader for personal gain. Psychological imbalance—one or several unsolved problems that form a “heavy backpack”—as well as alcohol problems were also mentioned as negative factors for good leadership during severe stress. The value of having experienced and then subsequently managed stressful incidents recurred in the responses. One of the respondents expresses it as follows: “One should have been down in the cellar, to also feel one’s weaker sides and thereafter worked oneself upwards.”

To the more general, person-related tendencies should be added social skills. Here we have coded points of view of the type that comprise a basic interest in people: to note the individual members of a group; to take the time and trouble to talk to people; to be able to communicate effectively with different people; and the ability to listen to others.

Responses also dealt with empathy and the importance of being able to show one’s own emotional reactions. This is how one officer put it: “The commander should be able to show a certain amount of empathy. I don’t think you are able to communicate empathy if you can’t express fear at all (the response describes a threatening situation—our comment). You must recognize some of the consequences yourself.” Leaders who show their own fear should also be able to show that they can overcome it (see also the code managing one’s own personal feelings in the section on leadership under severe stress, below).

Some of the persons interviewed also took up ethical and moral issues and values. It appears that leaders who have a moral backbone and live by them, tend to have greater respect from group members during severe stress than do their opposite numbers. Some of the respondents expressed this fact as a form of moral courage. It may be a matter of having to say no when no should be said from an ethical-moral standpoint. It could also be a matter of daring to take a decision that might be regarded as negative by the group.

**Profession-related Characteristics.** The code personal, task-related competence includes responses that deal with a leader’s ability to have the necessary knowledge and skills in relation to the task in hand. Some of the responses are more general for the role of an officer, others are specifically aimed towards a certain type of leadership role. The concept of experience recurred in responses with different contents. One was that a leader with earlier experience from similar missions is often more capable during a time of severe stress of grasping the situation quickly, virtually intuitively.

Another aspect of experience dealt with social, task-related competence. Responses that were sorted out beneath this code dealt with the ability to “read” correctly one’s own group members in relation to a given task. Someone compared this with the role of a team leader or coach in sports circles. It’s about the ability to compile the right team and optimize its performance. It might also be a question of “peaking” the team in a critical situation.

The third type of response was also directed socially but dealt with consideration; we named this code consideration-related competence. Leadership during severe stress seems affected by the leader’s ability to show consideration during critical situations, and the ability to preclude and handle strong emotional reactions among group members.

The fourth type of response has been designated identification and commitment. The responses here dealt with the commander’s ability to identify himself in the role of a professional, to feel involved or committed towards the goals determined, or which he or she has helped to define. Responses touched upon those we previously presented as ethical and moral values, under general, person-related characteristics. However, in the profession-related context, involvement or commitment is more directly connected towards a given task. Here, it’s also about a leader’s capability to distribute inspiration and create motivation among those being led, in order to tackle the task at hand.

**Characteristics of the Organization**

Two main groups of organizational characteristics could be seen in the interview responses: the structure and values of the organization and its members respectively.

**Structure and Values.** Belonging to this category are the physical-technical conditions of an organization. An organization can be described as more or less resourceful with regard to access to the necessary surrounding infrastructure, as well as its own physical-technical structure. It may, for example, be a question of the quantity and quality of technical equipment. Leadership during severe stress is facilitated by a favorable situation in this case and vice versa.

Most of the responses within the category “structure and values” dealt with formal and informal rules and routines; something, which could be called administrative conditions within an organization. A combination of two aspects could be traced. One of these is that leadership under severe stress is made easier if there is a clear division of the roles and responsibilities between different actors. This may, for example, be in the form of a clear and unambiguous command and control hierarchy. The second aspect is that leadership under severe stress is facilitated if communication has grown on an everyday basis, where different actors freely cooperate, without considering the formal hierarchy. One could compare this by laying out a free network structure over the formal hierarchy. The more an informal network structure dominates a course of events in everyday life, the more effective the formalized command structure will become when the network structure steps back during severe stress and vice versa.

We illustrate: “The horizontal, that is, the informal communication that goes across organizational levels, creates trust and cohesion, also across departments as well as a higher level of understanding, a much more sound understanding. It will also enable decisions to be made at a lower level.”

Said another officer: “One cannot have an organization where there is no trust or confidence among co-workers when the going gets tough. Then they won’t be able to solve
the problems; the channels that are needed, the teamwork
that is necessary between individuals and departments in the
organization do not exist at the starting point. This brings
development to a halt.”

A third group of responses was named basic values within an organization. This code is similar to the one designated for ethical and moral values within the leadership dimension. Now, however, it is a question of which values and goals an organization emphasizes, how distinctly this is done, and how consistently it is emphasized by the leaders of the organization. Our model assumes that leadership under severe stress is easier if the basic values of an organization are explicit and familiar, and if they coincide in agreement with the majority of personal norms and value systems.

Members of an Organization. The category organization members are composed of three codes. The two first mainly have the same content as the two categories under the dimension characteristics of the leader. They are therefore named general, person-related characteristics and profession-related characteristics respectively. In general, leadership under severe stress should be facilitated if the members of the organization are resourceful with reference to the two of these.

The third code we name as group cohesion. A large proportion of responses built up this code, and expressions such as mutual trust and respect, comradeship, and a supportive climate were common. The connection to leadership under severe stress was evident in the responses that it is easier in groups with a strong sense of teamwork and cohesion, and vice versa.

Everyday Leadership

A leader must be a leader full-time, all of the time. It is this sort of leadership that followers learn to trust and do not question during periods of severe stress.

Trust-building Leadership. One dominant theme in the responses surrounding leadership under severe stress was the importance of mutual trust between the leader and the followers. Responses to follow-up questions indicated in an equally lucid manner that trust is something one builds up on a day-to-day leadership basis.

One essential prerequisite for being trusted is perceptibility. We quote a psychologist: “Perceptibility—that you as a person sitting on the top are not sitting in the office with the door closed but actually are at hand in time of peace. I think that also contributes to building up trust and respect for you as a leader, because trust and loyalty is not something you can demand, you have to earn it.” A soldier expressed it by saying that a senior officer approaches and starts talking, that they share the soldiers’ situation in the matter of living quarters and risk factors, that they talk with each other, socialize, show an interest, and listen.

A related group of responses dealt with the respectful treatment of individuals by leaders. Here are included types of responses that the soldiers should be treated as people: leaders should be fair and consistent, show care and consideration for individuals and groups and not merely think of themselves; leaders should also recognize the potential and knowledge of soldiers; they should be flexible enough to adapt to the group, be humble, have a good sense of humor, and a glint in the eye.

A third code was named freedom to speak one’s mind. One of the psychologists said, “It is in the everyday work you lay the foundation of the organization, an organization where there is a good work environment—open communication.” An officer stressed that those commanders who are used to a strict stereotypical form of control at home often lack the ability to improvise and to be humble when it becomes necessary during international missions. A psychologist pointed out that a paradox could occur between evaluation and development. If a demand for evaluation is submitted too strongly, then one may not dare to try something new. Instead, one does what one thinks one’s superior wants him to do.

A related matter is how a leader reacts when someone does something wrong. If, as a leader, you’ve made a mistake yourself, then the trust and confidence within a group rises if you admit it. It could also be about the leader self-intuitively letting someone else take over responsibility temporarily. If anyone in a group has made a mistake, this should be pointed out in a constructive and encouraging manner.

A fourth group of responses dealt with values, morals, and sincerity. A leader should illustrate his or her values—what he or she stands for—to win people’s trust and confidence. It’s important too that a commander doesn’t bluff. Several responses also dealt with courage; to dare to be straight-backed, and to be a role model.

A fifth group of responses on how to achieve trust dealt with competence within one’s own area. The importance of competence was highlighted more in questions about leadership during severe stress (see below).

Exercises. Positive responses included the importance of conducting exercises. One knows what one must do, and it is this one resorts to when one becomes scared. It is about reacting without thinking too much and attaining an experience platform to make one feel safer and more secure.

On the negative side of stress exercises was mentioned that these can give a false sense of security. There is a risk that one misses the general picture of a new, stressful situation, because one hasn’t practiced unexpected situations. According to the psychologists, however, this risk can be prevented or reduced by the exercise commander’s inserting surprise incidents.

Leadership under Severe Stress—Categories and Codes

Mutual trust between leaders and group members is a recurrent theme in the interview responses to questions about what characterizes successful leadership during severe stress. Contents-wise, the same types of arguments recurred as those shown above under everyday leadership.
In addition, the response picture was dominated by expressions that, in different ways, had to do with the competence of leaders. Some of these mainly dealt with competence in relation to tasks. The second group of responses dealt with competence in relation to the group one is leading.

**Task-directed Leadership.** One code in this category was labeled *stop and survey the situation.* It is a question of stopping for a moment (sometimes just a few seconds) before making an important decision. Examples of the opposite of surveying the situation is to focus on details or not to see the seriousness of the consequences of one’s own actions. Underestimating the seriousness of a situation is another variant of this theme. It was also pointed out that leaders in high-stress situations must have an accurate overall picture so as to decide where “the point of no return” lies and what decisions are to be taken at this point.

Another type of response is about *thinking ahead.* This is for leaders to quickly review the situation and then think ahead, proactively. The lack of this action can cause a leader to concentrate more on what has already happened than on the future. Returning to a task that requires a previously acquired professional knowledge is also reported as an example of the absence of proactive thinking.

Still another example of the absence of proactive thinking is when a commander shows obvious signs of insecurity regarding what should be done next. This in turn creates a tendency towards a feeling of insecurity within a group. The inability to constructively think ahead can also lead to excessive consideration of the group and insufficient attention to the tasks in hand. One psychologist expressed this by bluntly using the English colloquialism “kindness can kill.” The fear of one’s superiors or the media’s reactions can also lead to a commander’s devoting more effort to “saving his own ass” than thinking and acting proactively.

A third code was named *risks with excessive courage.* The officers quoted examples of selfish and rash commanders during moments of stress. These people do not see their own limitations and can involve an entire group in a problem. A psychologist commented that leaders with an infallible belief in themselves often react in a one-track manner under high stress. Another psychologist pointed out that leaders of this type are dangerous. They give a bad impression to others and don’t trust their team. Instead, they argue, “I’m the only one with a brain.” Even if these leaders are highly qualified and competent within their current fields, they absorb far too heavy a workload personally and risk a speedy “sinking.”

A fourth code name is *managing one’s own personal feelings.* The officers pointed out that leaders should show they are “adequately vulnerable.” If the leader puts on a front that appears totally unaffected, people will easily lose confidence in him or her. And, if the leaders can’t handle their feelings at all, the same thing will happen. Several responses also emphasized that uncontrolled emotional reactions among leaders make them lose their authority easily. In this context the importance was mentioned, among other things, of having the right, mild tone of voice when talking to lower the stress factor rather than to increase it.

A fifth task-related code was named *clarity towards senior officers.* Soldiers and officers pointed out that some leaders were unable to question orders they considered inappropriate, and, alternatively, didn’t dare to ask for clarity if they regarded a superior officer’s orders as indistinct or unclear. This could lead to their doing their own thing, without the authority to do so, exposing the group to unnecessary risks and losing their trust and confidence.

**Relationship-directed Leadership.** The responses that refer to the code *distinctive role of a leader* are about being able and willing to accept a commander’s responsibilities. It is also about daring to issue orders and to be authoritative. It is about being able to switch from a democratic commander’s role into a more authoritative role and doing it so that the members of a group understand the necessity of it. The psychologists pointed out that inexperienced leaders often have problems in asserting their authority in acute, high-stress situations.

The second group of responses dealt with the *motivation of group members prior to tasking.* The officers stressed the importance of information prior to a task; that the commanders help soldiers to mentally prepare themselves for coming stressful situations. The importance of doing this in such a manner as to create a positive frame of mind was also emphasized: “We’ll make it!”

A third type of response dealt with *individual consideration through activation.* One psychologist stated the following: “Consideration does not necessarily require that you pat someone on the shoulder or comfort him. It might just as well be to take hold of someone and give him or her a task.” Attention was drawn to the fact that it is the leader’s task to quickly assign meaningful secondary tasks, since activities of this kind tend to cushion anxiety.

The fourth and last code contains responses centering on *crisis management following an acute situation.* These responses are aimed in two directions. One group of responses aimed towards their own group. Participants pointed out that it is important that a leader manage handling his or her group in the aftermath of an acutely stressful situation. This may entail grief, anger, doubt, and guilt. The second group of responses dealt with the symbolic function of a leader in times of grief. We quote a psychologist: “It is the leader who has an extremely important symbolic function for his department or group. This is to express sorrow, compassion. It’s to put a face to a name. Being an external spokesperson for the department or group, not least towards the press and media.”

**Discussion**

This study shows that leadership during moments of severe stress can be understood against the background of leader characteristics, organizational characteristics, and leadership in everyday circumstances. Since the purpose was to obtain
in-depth knowledge and understanding of leadership in circumstances of severe stress, the information obtained has not been gathered with the intention to permit a complete analysis of these underlying circumstances per se. The significance of trust-building leadership on an everyday basis for the outcome of command during incidents of severe stress, however, was not predicted. Neither have we found that this dimension is equally as emphasized by other researchers.

The main value of this study should lie in the data-based map of leadership during incidents of high stress or severe crisis, with the codes and categories that make up this dimension, as well as the codes and categories in the dimension “underlying circumstances.” Benefits could also lie in the opportunity to connect the study to existing theoretical formulations, which our model construction gives.

The content in what we called trust-building leadership as a part of everyday command shows significant similarities with the three main ingredients (inspirational motivation, intellectual stimulation, and individualized consideration) in what Bass calls “transformational leadership.” The division in task-directed and relationship-directed leadership respectively can be found in classical models of leadership such as the Ohio school and Hersey and Blanchard’s model of situational leadership. A third illustration of possible theoretical associations is R. S. Lazarus’s stress theory. Lazarus’s model emphasizes appraisal processes; the truth lies in the eyes of the beholder. Leaders can play a crucial role in stressful situations by affecting how their followers appraise ambiguous conditions.

In our proposed model, leadership on an everyday basis is regarded as a product of interaction between leader and organizational characteristics. It should be mentioned that there will probably be an effect also in the reverse direction; in other words, ordinary, day-to-day leadership will have repercussions on leaders as individuals and on organizations.

One of the essential findings of this study is that additional research needs to be done to differentiate the concept severe stress. This additional research will enable us to provide more precise descriptions of leadership under severe stress for different types of particular acute stress situations.

In constructing our current model we were limited to data obtained from a selected group of military officers, soldiers, and psychologists. It should also be emphasized that the concepts derived from the data may be of a sensitizing rather than of a definitive character in Blumer’s words. Bringing a variety of leadership actions together under the heading “trust-building leadership” could, for example, be questioned although this actual word occurred frequently in the interviews. It should also be noted that the study relies on self-reported data only. These may be inaccurate, and a broader range of data would have been desirable.

Another limitation may be that two to five years had passed between the incidents and the interview for the Swedish participants. Although it appears that humans remember central issues of stressful episodes quite well (Christiansson, 1992), it cannot be excluded that various kinds of psychological processing may have affected the memory. Little is also currently known about the generalizability of the model. However, this was not the goal of this qualitative study. In the general terms of Glaser and Strauss, “Partial testing of theory, when necessary, is left to more rigorous approaches (sometimes qualitative but usually quantitative). These come later in the scientific enterprise.” Thus, further studies of leadership under severe stress are needed in a variety of contexts to further, develop, formalize, and evaluate the effectiveness of the present model.

Notes