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Eric-Hans Kramer

Organizing Doubt

Grounded Theory, Army Units and
Dealing with Dynamic Complexity

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Organizing Doubt – Grounded Theory, Army Units and Dealing with Dynamic Complexity

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Preface and Acknowledgements

'(...) I know that wider circles of readers have been content to reduce the contents of the book to a catch word ('wish-fulfillment') which can be easily remembered and conveniently misused.'

Sigmund Freud (1960, p. 197) on The Interpretation of Dreams

The fact that this book has grown out of my doctoral dissertation puts me in a somewhat different position compared to many other writers of books. One of the differences is that I have already experienced the reaction of numerous readers. There were many positive reactions from readers, both from within and outside the military organization. Eventually, these reactions led me to submit the manuscript to a publisher. Of course, critical comments were made; often by the same people that formulated positive reactions. Some took the trouble of intensely reviewing parts of this study and worked out some critical notes. After these experiences I know that being criticized is a form of being taken seriously. These reactions helped me to progress further with the subject.

Apart from what one might call 'normal academic reactions', there are the reactions that were 'different'. My standard reaction has been that these reactions confirm the claims being made in the study. I experienced that if a study is considered controversial, many people voice an opinion on it, whether they have read it or not. Indeed, it seems that many find it convenient to reduce the content of the book to a catch word which can be easily remembered and conveniently misused. More than once people have, with superior disdain, formulated reactions like: 'there is more to military operations than doubt'.

Another difference between me and many other writers of books is that I am in a way being offered a second chance. There is a positive and there is a negative side to this. On the one hand, this second chance was inevitable, as the editor demanded that some changes should be made. Particularly the basis of the argument in organizational literature has been extended. I consider these comments to be valuable, they improved the work considerably. I also took the opportunity to use the critical comments of my previously mentioned 'academic critics'. On the other hand, however, there was the ever present lure to go over every single formulation again and again, to incorporate quotes from the latest books I read. A distinct risk of such changes is that the new version drifts away from the original version. For this reason, I only gave in to this lure in modest amounts, on a few occasions.

Without the dedication and support of others I would not have been able to finish this project. As this study grew out of my dissertation, I first want to thank the members of my Ph.D. project committee: Prof dr H. Kuipers, Prof dr. R. van der Vlist, Prof. dr. A. Vogelaar, Prof. dr P. Van Amelsvoort and Dr F. van Eijnatten. Prof dr H. Kuipers, Prof dr. R. van der Vlist, Prof. dr. A. Vogelaar supervised me during the process of developing this thesis. On the one hand, they helped me with their profound knowledge of the subject of this thesis. On the other hand, they provided me with every opportunity to follow the sometimes very twisty paths towards this thesis. Most importantly perhaps, they were always prepared to discuss extensively and critically any topic that was related to this study. Such broad minded supervision of dissertations is the exception rather than the rule. In the later stages of the process Prof. dr. Van Amelsvoort and Dr F. van Eijnatten made invaluable contributions. Second, I want to thank Stewart Clegg for providing me a thoughtful review of the original manuscript of the dissertation and for providing me the opportunity to publish the study within this series.

Third, I want to thank the members of the project group *Leiderschap in Crisisomstandigheden*. Together they developed the exploratory case studies that are the basis of this study. Over the years a great number of people have contributed to the project: Max Metselaar, Jolanda Bosch, Annemarie Witteveen, Coen van den Berg, Frans Nederhof, Ed de Bruin, Nancy Kensmil, and Tessa op den Buijs.

Fourth, I could not have finished this dissertation if the Military Academy in general and the Social Science Department in particular had not provided me every opportunity. Not only have I been given the freedom to pursue my own interests, I always have been able to devote many working hours to the thesis. Apart from these matters of time, the Social Science Department also provided a stimulating intellectual climate in which a critical and creative research attitude has always been wholeheartedly supported. In this sense the department has been somewhat of an oasis within the Military Academy. Some members of the Social Science Department particularly helped me by critically reviewing (parts of) this thesis or by providing me the opportunity to discuss certain controversial issues: Rudy Richardson, Frans Ramakers, Jolanda Bosch, Axel Rosendahl Huber, Erna Rijsdijk and Nancy Peters.

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Finally, I want to thank my family and friends who always lovingly stimulated me during the entire process, if only by commenting in characteristic fashion ('are you *still* not ready?'; 'will I live to see the finishing of this?').

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Introduction

Asserting that military organizations need to operate in complex environments is one of the least controversial statements one can make in the realm of military studies. In fact, it is a truism that military organizations need to operate in difficult circumstances. During their deployment, armies are confronted with dangers, cunning enemies, unexpected changes, and a general level of uncertainty. The obvious implication is that armies need to be able to deal with complexity, or *dynamic complexity* as it will be labeled in this study.

Not surprisingly, the general theme of the turbulence and chaos of war is important in military literature, although the actual phrase ‘dynamic complexity’ is never used. For example, Von Clausewitz (1968, p. 162) remarked: ‘Great part of the information obtained in War is contradictory, a still greater part is false and by far the greatest part is of doubtful character.’ Von Clausewitz (1968, p. 140) stated furthermore that: ‘From this uncertainty of all intelligence and suppositions, this continual interposition of chance, the actor in War constantly finds things different from his expectations; and this cannot fail to have an influence on his plans, or at least on the presumptions connected with these plans. If this influence is so great as to render the predetermined plan completely nugatory, then, as a rule, a new one must be substituted in its place; but at the moment the necessary data are often wanting for this, because in the course of action circumstances press for immediate decision, and allow no time to look for fresh data, often not enough for mature consideration’.

In these quotations Von Clausewitz emphasizes the effects of chaos on the *individual* actor. However, he also recognized the *organizing* problems with which military organizations are confronted as a result of dynamic complexity (1968, p. 165): ‘Theoretically all sounds very well: the commander of a battalion is responsible for the execution of the order given; and as the battalion by its discipline is glued together into one piece. (...) But it is not so in reality, and all that is exaggerated and false in such a conception manifests itself at once in War.’ Von Clausewitz referred to this phenomenon as *friction* (1968, p. 168): ‘This enormous friction, which is not concentrated, as in mechanics, at a few points, is therefore everywhere brought into contact with chance, and thus incidents take place upon which it was impossible to calculate, their chief origin being chance.’ These quotes show that already in the 19th Century military thinkers grappled with subjects that are currently of the highest importance in organizational studies.

This study focuses on the *organizing* problems that result from the problem of dealing with dynamic complexity. However, the focus is not on conventional military operations. This study will use the concept of

dynamic complexity to focus on a new type of military operations: Military Operations Other Than War, or peace operations¹. In recent years the Dutch Armed Forces, for example, have been involved in more than 25 peacekeeping operations, peace-enforcing operations, humanitarian operations, or UN-monitor functions (Klep & Van Gils, 1999). In fact, in the last decade the Army has continuously been involved in such operations. Because of the sheer number of such operations and the number of units involved in those operations, peace operations constitute an important part of the daily business of the Dutch Armed Forces. In fact, The Ministry of Defence indicated that peace support operations are to be considered the core business of the Dutch Armed Forces (Ministerie van Defensie, 2000). One can imagine that all this constitutes a significant transformation for the Army.

The introduction will briefly touch upon the main themes in this study. The staging of central themes in this study already hints at the main conceptual positions taken by this study, although the different themes are more thoroughly worked out in the chapters. The introduction should enable the reader to grasp the complicated structure of this study. Subsequently, the following topics will be discussed:

- The central issues of this study;
- The concept dynamic complexity;
- The experiences of military organizations in dealing with dynamic complexity;
- The similarities and differences between peace operations and conventional military operations;
- The main theoretical position of this study, summarized by the statement ‘organizing doubt’;
- The methodological approach used in this study.

Finally, an overview will be given of the structure of this study.

Central issues

At first, this study will argue that in peace operations the Army needs to be able to deal with a dynamically complex environment. For this reason, this study will perform a theoretical exploration of useful ways of thinking about dynamic complexity are explored. The theoretical exploration carried out in this study will address theoretical questions like:

- What is meant by dynamic complexity and what is dealing with dynamic complexity?

¹ The phrases ‘peace operations’ and ‘crisis operations’ are used interchangeably in this study.

- How can operators deal with dynamic complexity in the best possible way?
- How can an organization organize its ability to deal with dynamic complexity?

Second, the Army's ability to deal with a dynamically complex environment in peace operations will be analyzed. The theoretical exploration is used to support an analysis of three existing exploratory case studies of Dutch Army units operating in Bosnia. These case studies show that Army units deployed in Bosnia in different periods did confront dynamic complexity and did find ways to deal with dynamic complexity. The analysis of the experiences in the case studies will explore the capabilities of the units in the cases to deal with dynamic complexity. Finally, on the basis of this analysis it will be attempted to develop insight into the ability of the Army to deploy units that are able to deal with dynamic complexity.

The concept of dynamic complexity

Within organizational studies, dynamic complexity is regarded as one of the most fundamental problems organizations are confronted with. This is of small wonder as dynamic complexity represents the very antithesis of organizing. Organizing refers to forgetting and reducing variety (Weick & Westley, 1996), in other words to developing control and order within a system. On the other hand, manifestations of dynamic complexity (for example uncertainty, ambiguity, equivocality, see Weick, 1995) threaten existing forces of 'order'. Not incidentally, organizing and dynamic complexity are often defined in reference to each other. In a sense, therefore, *organizing* and *dynamic complexity* refer to Nietzsche's Apollonian and Dionysian forces, i.e. the forces of order and disorder, which are active in and upon organizations.

At this place I want to roughly define the problem of dealing with dynamic complexity by delineating its abstract structure. This definition will be extensively discussed in Part Three. Dynamic complexity refers to a *problematic environment* that organizations are confronted with. Its *indeterminate nature* is the environment's main problematic characteristic. The organization's environment is not an object with an underlying 'true' and 'fixed' structure that can be revealed by analysis. At the same time, however, the environment confronts the organization with a *necessity to act*. The environment is not a mere object for observation but the area in which the organization should accomplish its goals. The organization cannot postpone action and devote itself to abstract theorizing about the problematic environment until it is absolutely certain. To be more precise, the environment becomes problematic because of the necessity to act. The organization cannot ignore the indeterminate environment; somehow it needs to deal with it. Subsequently, the

'problem of construction' arises. *The organization needs to find out 'what is going on'* in order to be able to deal with the problems it is confronted with. In the rest of this study organizing activities and 'dealing with dynamic complexity' are considered to be synonymous. All in all, dynamic complexity confronts an organization with a control problem.

Quite deliberately the elementary problem for organizations is named *dynamic complexity*. Senge (1992, p. 71) distinguished between *detail* complexity and *dynamic* complexity. Detail complexity is complexity constituted by many variables. Dynamic complexity refers to situations in which 'cause and effect are subtle, and where the effects over time of interventions are not obvious'. In other words, mathematical problems can be complex but these are problems for which there is only one correct solution. The complexity of mathematical problems belongs therefore to the *detail* kind. When the solution is found, the problem is solved. The particular kind of complexity this study is interested in continues to exist after a – for the moment – workable solution has been found (Weick, 1979).

Experiences of military organizations with the challenges of dynamic complexity

Throughout history, military organizations have tried to find solutions for the problem of dealing with dynamic complexity. It will be of no surprise that there are examples of armies that have been rather successful and armies that have been unsuccessful at dealing with dynamic complexity. A typical reaction to the threats of dynamic complexity is the tendency of aiming to transform all uncertainties into certainties by trying to develop perfect systems of planning, perfect ways of data-gathering, perfect ways of monitoring and controlling troops, etc.².

Experience has taught us that strategies that rely on a totalitarian transformation of all uncertainties into certainties tend to be short-lived when confronted with the first un-planned uncertainties. World War I has arguably shown the most penetrating examples of the perverse nature and potentially devastating effects of this strategy (Van Creveld, 1985). Although the aim to transform uncertainties into certainties is in a certain sense understandable it ignores the fact that dynamic complexity is considered a *fundamental* problem for organizations that are challenged by the chaos of war. Fundamental means that it provides a problem that *in principle* cannot be overcome, although organizations can be prepared for it in better and worse ways.

Apart from many bad examples there are examples of armies that have been rather successful at developing practical solutions for dealing with dynamic complexity. Van Creveld (1985, p. 270) also recognized the problem

² Cohen & Gooch (1990) make clear that it is more fruitful to view these problems from an organizational perspective, than from the perspective of individual psychopathology.

dynamic complexity confronts military organizations with and pointed to an important implication: ‘The fact that, historically speaking, those armies have been most successful which did not turn their troops into automatons, did not control anything from the top, and allowed subordinate commanders considerable latitude has been abundantly demonstrated’. The example that has particularly captured the mind of both military commanders and military scientists is – perhaps surprisingly – the German Army in World War II. They applied a system of command that was later labeled *Auftragstaktik*. The system of Auftragstaktik, which was developed and applied by the German armed forces during World War II, although the first experiments had already been conducted in World War I, or even earlier (Wilson, 1989; Nelsen, 1992; Van Creveld, 1985; Naveh, 1997). Autragstaktik can be considered a system of decentralization *avant la lettre*.

This system of command proved to be very effective during the early years of World War II. The chaotic and unpredictable nature of situations during war was taken as a point of departure. It was reasoned that because of this level of uncertainty not every action at the operational level could be prescribed. Rather, units at the operational level were considered to be the ones that were most aware of all recent developments and consequently in the best position to decide how to act. In this respect this system of command implies autonomy at the operational level. Top-down there were only rough guidelines formulated, i.e. objectives to be met, the deployment of a unit in its wider context, and units were supplied with adequate means to accomplish the goal (see for example Vogelaar & Kramer, 1997; Kramer & Kuipers, 2002). Within this framework of general rules, units were supposed to perform their *Auftrags* or Missions. Many contemporary Western armies developed systems of command that are based on the essentials of *Auftragstaktik*, usually under the name of Mission Command. The advantages and disadvantages of different ways operationalizing the essential ideas of *Auftragstaktik* are permanently discussed within the realm of military sciences (see for example Vogelaar & Kramer, 2004).

What I perceive as lacking in most accounts of Mission Command is a clear link to organizational theory. Although the historical experiments with decentralization in military organizations are certainly very interesting, the theoretical underpinning of the system rarely goes beyond: ‘because of chaos, you should grant operational units autonomy by providing broad assignments and rough guidelines instead of detailed orders.’ In this study I want to approach this subject the other way around, so to speak. The starting point is organizational theory in general and the issue of dealing with dynamic complexity in particular.

Peace operations and conventional military operations

Quite obviously, the actual everyday challenges of military units in peace operations are quite different from the challenges of conventional military operations. In these respective operations, the tasks and environment of military units are very different. Already in 1976 Moskos has described the main differences between conventional operations and peace operations (1976, pp. 130–131) ‘In contrast with standard armed forces, the constabulary and peace soldier are concerned with the attainment of viable political compromises rather than with the resolution of conflict through force’. This difference between roles can lead to particular problems for soldiers³. They are conceptualized as *identity* problems by Franke (2003). To clarify this problem of identity he quotes Winslow for example who claims (1997, p. 210): ‘because civilized military training incorporates into its standards the notion that it is permissible to kill certain people but not others, feelings of ambivalence are likely to result among combat troops when faced with their ROE (rules of engagement, ehk). This ambivalence may create an environment within which concepts of morality and legality become abstract, subject to varying situational definitions.’ One could say that compared to conventional military operations there is a distinctive ‘political’ side to the operational tasks in peace operations. In the last decades the differences between peace operations and conventional military operations have been intensely discussed (Britt & Adler, 2003).

Although there are obvious differences between conventional military operations and peace operations it is not accidental that military organizations are supposed to perform these missions. One could say that peace operations most of the time involve some kind of danger. It might be that units are supposed to protect a part of a civilian population, or are to enforce a peace treaty, or there might be a certain threat of escalation in a certain area. Notwithstanding the differences between conventional military operations and peace operations, the problem of dealing with dynamic complexity can be considered manifest in both types of operations. Although the specific problems military units are confronted with may be different, both in peace operations and in conventional military operations, military units can be said to be confronted with a problematic environment, with a necessity to act and have to find out what is going on. This is also recognized by Britt & Adler (2003, p. 3): ‘These international peacekeepers must often do their job in a chaotic and uncertain environment.’ One could say that dynamic complexity in peace operations manifests itself in different ways compared to conventional military operations. In other words, although there are obvious differences between conventional military operations and peace operations, *the organizing challenge can be considered quite comparable*. For an

³ See also Avant & Lebovic (2000); Miller (1997); Segal & Tiggle (1997).

organization like the Army it is sensible to assume that it will encounter dynamic complexity. Therefore it is sensible for the Army to organize units they deploy in such a way that they can meet the challenges resulting from dynamic complexity in their operations. This challenge is at the center of attention in this study.

The methodological approach

The methodological approach used in the research project is an example of the ‘grounded theory’ framework (Glaser & Strauss, 1967). In 1968, the grounded theory approach (GT-approach) was introduced as a type of qualitative research to ‘uncover and understand what lies behind phenomenon about which little is known’ (Strauss and Corbin, 1990, p. 19). After 1968, many publications about this approach have addressed its underlying and operational logic and, most of all, its (differences in) procedures (Glaser and Strauss, 1967; Glaser, 1978; Glaser, 1992; Straus and Corbin, 1990; Wester and Peters, 2004). The methodological logic of this study resembles the logic of the grounded theory approach.

The grounded theory approach is appropriate for this study for several reasons. To start with, the existing exploratory case studies that this study analyses were conducted in order to develop insight into the everyday problems of operational units during peace operations. At the time the case studies were developed, peace operations were a relatively new phenomenon, so little was known about these everyday problems. This study can be said to take up issues that were generated by the case studies. One of the issues that emerged from the case studies was indeed the problem of dealing with dynamic complexity. Further insight into this problem appeared to be relevant given the problems the operational units in the case studies experienced.

An issue that followed from this was the question of the particular way in which organizational characteristics stimulated or hindered dealing with dynamic complexity at the operational level. All in all, an analysis of existing case studies, combined with an analysis of ‘stable’ characteristics of the mother-organization will add up to insights into the ability of the Army to deploy units that are able to deal with dynamic complexity. The result of the reflection is a substantive theory, which is a theory that is specific to the field of study (Strauss & Corbin, 1998, p. 23). Substantive theory is to be distinguished from formal theory. Compared to substantive theory, formal theory is less specific to a group and place and therefore more generally applicable (Strauss & Corbin, 1998, p. 23). Formal theory refers to the ‘existing theoretical insights’.

Organizing Doubt

As has been emphasized, formal theory about dynamic complexity is not explored for its own sake in this study. Formal is used in order to facilitate the process of developing a substantive theory. Nevertheless, the development of an analytical framework is one of the main activities in this study. An analytical framework is a construction of theoretical ingredients to tackle specific questions. It is not merely assembled to conduct interesting theoretical explorations. Generally speaking, the analytical framework of this study will be built up of theoretical ingredients that specify what the nature is of dynamic complexity, of dealing with dynamic complexity and of dealing with dynamic complexity in the best possible way. That means that this study is orientated to a normative question.

Although the analytical framework is constructed from existing formal theory, in certain respects this study interprets this existing theory in a specific way. Starting from systems theory as a macro-theoretical framework, the problem of dealing with dynamic complexity is developed using the organizing model of Karl Weick which he described in *The Social Psychology of Organizing* (1979). According to the interpretation in this study, a ‘logic of hypotheses’ is central in this model: systems deal with the demands of a dynamically complex environment by *acting* to deal with immediate challenges and subsequently by developing ‘workable’ hypotheses about the nature of the environment. The model essentially describes the process of developing *and discrediting* these ‘workable’ hypotheses. Because this study is orientated to normative issues, the model is analyzed for its normative aspects. It will be argued that ‘doubt’ occupies a normative role in this model. This is an interpretation that is not made explicitly by Weick himself. The importance of doubt can be made clear by means of the following deceptively simple statement: ‘if the environment is dynamically complex it is impossible to know and understand everything in advance, therefore you need to be able to doubt your existing insights.’

‘Doubt’ is described here as an abstract function necessary for dealing with dynamic complexity. The ideas of social psychologist Michael Billig on *argumentation* as he formulated them in *Arguing and Thinking* (1996) are used to characterize the nature of the process that is behind the abstract function. It is concluded that if organizations want to organize doubt, they need to develop a process of *meaningful* argumentation. The emphasis on *meaningful* argumentation as opposed to argumentation in general implies in this study that the organizational context in which argumentation is taking place can have a profound influence on the process of argumentation. A subsequent deceptively simple statement follows therefore: ‘if the ability to doubt is of crucial importance for organizations dealing with dynamic complexity, organizations need to organize their ability to doubt’. It will be argued that – what Michael Billig calls – a spirit of contradiction should be

'organized' within an organizational system that is confronted with dynamic complexity.

The two deceptively simple statements constitute the rationale for the title of this book: organizing doubt. In order to establish whether doubt was organized in the operational units in the cases, the organizational structure of these and the style of leadership that was employed will be analyzed. Subsequently, the limitations on the organization of doubt that result from the characteristics of the mother organization (which provides the prerequisites for the deployed crisis organization, i.e. the Army in the Netherlands) will be analyzed. All in all, it will be concluded that certain structural (meaning 'stable') characteristics of the mother-organization have a negative influence on 'doubt'. It is not implied that it is absolutely impossible that a process of meaningful argumentation can be established in the operational units of crisis organizations. It implies that the chances for such a process are negatively influenced by certain stable characteristics of the Army. One of the conclusions will be that these stable characteristics make the development of successful systems of decentralization, such as Mission Command, rather problematic.

The different parts of this study

In a sense it is ironic that this study advises a military organization to organize doubt. An organization that has the image of strict orderliness, tight planning and obeying orders to the letter is advised to build in forces of disorder, so to speak. It is furthermore advised to locate this ability at the very front of the operations not in some shady staff bureau. As such, this study challenges what are often considered as obvious truths in the military organization. Personally, I have considered this to be a goal in itself.

This study consists of six parts, which each consist of a couple of chapters. Part One discusses the architecture of this study in detail. Furthermore, the relevant methodological aspects of this study are dealt with. Part Two is orientated to the development of the abstract parts of the analytical framework. The macro theoretical framework is discussed, the process of dealing with dynamic complexity is modeled and the normative element in this model is identified and discussed. Part Three is orientated to the development of the concrete parts of the analytical framework. The necessary conceptual tools are discussed which will be used to analyze the cases. In Part Four the existing exploratory case studies are analyzed. Part Five will discuss the influence of some characteristics of the mother organization on the organization of doubt. Part Six is the final part and summarizes the most important conclusions and discusses directions for further research. To facilitate reading, only the male pronouns 'he' and 'his' are used throughout this study. They do, however, refer equivalently to 'she' and 'her', respectively.

PART I

The architecture of this study

Part One consists of two chapters and is dedicated to the architecture of this study. Chapter One discusses the background and goal of this study and the central questions. Chapter Two discusses the crucial methodological questions.

The architecture of this study

In this chapter, the architecture of this study is discussed. To start with, the background from which this study started is discussed, followed by an exploration of this study's central problem. Subsequently, the goal of this study and the specific research questions are formulated. The next chapter will go into the details of the methodological characteristics of this study.

1.1 The background

In 1995 a research project was started at the Military Academy entitled *Leiderschap in Crisisomstandigheden* (Leadership in Circumstances of Crisis). The project started with the involvement of the Dutch Armed Forces in former Yugoslavia in operations before and after the Dayton Peace Agreements in 1995 as part of a UNPROFOR and NATO intervention. Involvement in such operations was, partly, the result of a change in military strategy in the Netherlands from a 'cold war military strategy' to 'modern military action' as a consequence of the East-West détente in 1990. These operations will be referred to as peace operations. Peace operations involve the range of military operations under United Nations or NATO responsibilities in certain regions in the world like: conflict prevention, humanitarian actions, peace-keeping, peace-building, peace-restoring, and peace-enforcement. The project was induced by the then relatively new phenomenon of peace operations and the fact that the Military Academy trains cadets who may become involved in such operations. The main goal of the research project was to develop insight into the experiences of Dutch units working in peace operations. The results of the research project were (and are) worked out in various publications and used in the officers' education.

This study is part of the research project. It can clearly be distinguished from other projects within the research project and this study is located in a different methodological phase compared to the rest of the projects within the research project. This can be clarified by distinguishing between different phases in the Grounded Theory process. Wester (1993) argued that the 'grounded theory process' can be split up into four phases: the exploration phase, the specification phase, the reduction phase and the integration phase:

- The *exploration phase* aims at becoming acquainted with the field of study, and at the development of an analytical framework (Wester, 1993, p. 56). The research project started with two exploratory case studies. The goal of these case studies was to develop insight into the nature of the experiences of the soldiers that had been deployed in peace support operations. As such they provide a picture of the everyday life of military units at the lowest hierarchical levels.
- The *specification phase* is more aimed at analysis of material than at gathering material (Wester, 1993, p. 63). After the analytical framework had been developed, the material was subsequently analyzed using this framework ('selective coding'). The framework consisted of categories of 'problem situations' junior leaders engaged. The categories were worked out by discussing the ins and outs of the 'problem situations' and the different ways in which the junior leaders handled them.
- In the *reduction phase*, the emphasis is on explicating the core of the grounded theory that is being developed (Wester, 1993, p. 64). In the grounded theory approach, such theory is called 'substantive theory' because it is orientated to the field of study (i.e. theory on military units in crisis operations). The core of the grounded theory is represented by what is called a core concept. Identifying and developing such a core concept is the main activity in the reduction phase (Wester, 1993, pp. 63–69). The *core concept* is a concept that characterizes a central process in the field of study (Wester, 1993, p. 64).
- In the *integration phase*, the core concept is used to develop a theory about the field of study (Wester, 1993, p. 69). In the grounded theory approach, such theory is called 'substantive theory' because it is orientated to the field of study (i.e. theory on military units in crisis operations). Substantive theory should be distinguished from formal theory, which is orientated to a general subject (for example, theory on organizational structuring) (Strauss & Corbin, 1998).

It will be argued that the most important other activities in the research project are located in the first two steps: the exploration and the specification phase. This study focuses on the last two steps: the reduction phase and the integration phase. One can also say that this study works out specific issues that have emerged after the first steps of the research project.

1.2 The starting point of this study

The exploratory case studies have a value in themselves because of the general picture they drew of everyday life during a crisis operation. However, the case studies were inherently limited. Although the experiences were categorized into groups of typical problems that junior leaders experienced,

and some attempts at theoretical reflection were made, the emphasis of the case studies was on recording experiences. Since recording experiences was the main emphasis of the case studies, the researchers mainly ‘listened’ to the stories of interviewees, but did not ‘react’ (or ‘talk back’). That is to say, the researchers described the experiences of the interviewees in cleverly constructed categories, but they did little more than superficially reflect on the experiences. They did not systematically use theoretical knowledge to put the experiences into perspective. This limitation of the case studies is inherent in their being exploratory case studies and should not be seen as criticism on the case studies. Nevertheless, the first motivation for this study was to do more than listening and recording experiences. In other words, this study progressed to the reduction and integration phase of the grounded theory approach.

Due to their exploratory nature, the case studies provided broad insight into the everyday affairs at the operational level. Therefore, the cases provided many possible topics for reflection. The operational units were confronted with stress, different cultures, danger, international cooperation, a worried home front, accidents, etc. As such, the cases provided various possible perspectives for further analysis. In this study, dynamic complexity will be identified as a core concept that fits the experiences in the cases ('emergent fit').

1.3 The relevance of the core concept

In introduction the centrality of the problem of dealing with dynamic complexity in organization studies was discussed. This study was induced by the apparent relevance of this topic. This section is orientated to arguing why 'dynamic complexity' is considered to be a relevant core concept. It will be discussed why this core concept has been chosen in the reduction phase. Subsequently, the implications of using this core concept in this study will be discussed. After these steps will have been taken, the design of this study will be explicated.

The problems of operational units in the cases

Notwithstanding the general acknowledgement of the importance of the issue of dealing with dynamic complexity in organization theory, it is important to see how it manifests itself during peace operations, in order to illustrate why it was chosen as a core concept. In this section, specific practical problems experienced by operational units will be interpreted as problems of dealing with dynamic complexity. The case studies discuss everyday practical problems of leaders and how they were dealt with. It is argued here that the problem of dealing with dynamic complexity can be recognized in the case descriptions. For example, the convoys of Logtbat were confronted

with dangerous situations such as shootings. Necessarily they were confronted with questions such as:

- When will the shootings occur again?
- Were they really directed at us?
- Why are the shootings taking place?
- What must we do when we are confronted with shootings?

When such everyday practical questions are asked, units are dealing with the indeterminate nature of the environment, the problem of (re)construction of this environment and the organizational issue of dealing with these problems. Furthermore, the answers to these questions are no eternal truths nor are they ultimately objective. Rather, they are based on everyday ideas and everyday structures that units recognize in their environments. It should be emphasized that not all practical problems involve dealing with dynamic complexity. Some practical problems can be dealt with on the basis of rules. The life of operational units would – after all – become pretty difficult if every practical problem involved dealing with dynamic complexity, and reality would have to be re-invented in every step they would take. Nevertheless, it is argued here that the most important and the most difficult, and therefore the most interesting, practical problems involve dealing with dynamic complexity.

If one asks people about their experiences in these operations, they are not likely to answer that they experienced difficulties with the ambiguity of the environment and the subsequent problem of the construction of reality. Nor are they likely to answer that they experienced their neutral role as paradoxical or that they had trouble with questions regarding the objectivity of minefields. Besides, people can become annoyed if one claims that their ideas are mere constructions ('If I step on a mine I will die, I did not imagine that!') or indeed if one claims that the environment is the construction of the organization itself ('I did not plant the mines myself!'). People are, of course, quite right to become annoyed if their experiences are branded constructions in such a primitive way. They are certainly not mere constructions because, as this example shows, the lives of the members of the units may depend on it. Below, a number of practical problems of operational units and how they were dealt with will be discussed. It is attempted to recognize the abstract behind the concrete⁴.

(Potential) danger

Military units are often deployed in dangerous areas. Actually, the reason that military units are deployed is precisely because the situations are dan-

⁴ The examples originate from the two earliest case studies that were conducted within the research project.

gerous and not very stable or certain. If a situation is safe other types of organizations could also be deployed. In the exploratory case studies it was found that operational units often had to deal with shootings, mines, and an aggressive local population. What makes a situation even more uncertain is that dangerous incidents can potentially occur at any time. Potential danger is, therefore, a continuous stressor for operational units.

Unforeseen situations

The situations military units are deployed in are mostly very unstable. As with (potential) danger: the reason why military units are deployed in certain areas is the instability in these areas. For operational units this means that they have difficulty to understand the complexity of a conflict and therefore the complexity of the situation they engage in. The convoys of Logbat in the UNPROFOR period can be used as an example of the problem of unpredictability. It was their job to transport goods from one point to another. While doing this, they saw quite a large part of the Bosnian area. What they did not expect and at first did not understand was that in one part of the area the Muslim and Croatian population were at war against each other, while in another part the Muslim and Croatian population teamed up against the Serb population. There are further examples. Logistic units in Bosnia, for example, had problems with roadblocks, shootings, mine incidents, everyday accidents like cars skidding off the road, sometimes witnessed atrocities, and saw the deplorable living conditions of the local population, but they also witnessed many people who did not seem to be in need at all. When a unit went on a convoy or on patrol, it did not know what situations it would encounter. The preparation of units is also a problem, because the complexity of the conflicts is often poorly understood beforehand. It is generally difficult to prepare units for a situation that is unpredictable and changes continuously. Sometimes operational units are even pioneers in an area, and thus the first witnesses of change.

The problematic neutral position

In some way, life in ‘normal wars’ is at least clear because there is an identifiable enemy. In peace-supporting operations, however, units are often deployed as a neutral, third party. This neutral position is more straightforward on paper as it is in the everyday experience of units. Suppose the units of the crisis organization are shot at. It can be far from straightforward how units should deal with such situations. Rules of engagement tell them not to shoot back immediately, but instead to wait and see (Was the shooting ‘really’ aimed at us? Was it a ‘shooting’ or a ‘firing close’?). How they are supposed to act depends on the exact formulation of the Rules of Engagement (ROE) in a certain operation, but most often it means that they must act

counterintuitively ('wait and see') when they are shot at. Such rules make that soldiers have to think 'politically', which is something they have not been extensively trained for. A further complication is that although there are often extensive ROEs, but there still remains substantial room for interpretation (Kroon, Heesakkers, Jacobs, Van der Veer, 1997). Another problem of neutrality is that the different parties in the conflict can potentially misuse the neutral position of units. Patrols of Dutchbat were sometimes shot at by the Muslim population who they were supposed to disarm and defend. The Muslim population, however, wanted to make it look like the Serbs were the ones that were doing the shooting. This game of 'pretending to be the other' was also played by the Serbs. One can imagine the frustration of units that are shot at by both parties in a conflict without being able to respond (apparently due to restrictive ROE), and without being able to fully understand the political games behind the incidents. Fighting parties sometimes try to use the neutral element in the environment as a cover to surprise the opposing force. There have been occasions in which military units used the passing of the Logbat convoys to change positions.

No consistent effects of operations

Dutch logistic units sometimes had to deal with a hostile local population at roadblocks. Sometimes it was helpful to approach them informally, starting with a light conversation about the weather or something like that. This could also have an adverse effect if it caused the locals to take the Dutch soldiers no longer seriously. Sometimes it was therefore helpful to approach them formally, asking for an equal in rank at the roadblock to negotiate on the situation. This, however, could have the effect of the locals finding the Dutch too arrogant (which was the theory of the Dutch units themselves). Contrastive lessons were learned from this situation. On the one hand 'locals only have respect for formal authority', and on the other hand 'it is important to be able to communicate with locals on a fair and friendly level'. Surprisingly, the same respondent could sometimes defend both rules⁵. This is an example of the response uncertainty of operational units. One could believe that this is only a temporary discomfort: after getting used to the specifics of their situation, units will learn how to deal with their problems. However, the nature of experiential knowledge is not that it provides simple rules to deal with every situation. On the contrary, the importance of experi-

⁵ This is one reason why an orientation on drawing lessons on the level of concrete behavior is not very useful for Army research institutes. Studies that aim to draw general lessons regarding "the approach of a roadblock" run the risk that they become too much entangled in the specifics of a given operation. The specifics of operations differ so much that lessons on that level are difficult to generalize to other operations. Another possibility is that lessons become so general that they become rather too obvious ("stay alert!").

ential knowledge is probably that it teaches that there are no simple rules to deal with every problem.

A dispersed way of operating

Characteristic of peace operations is that crisis organizations have a role as third party in a conflict. For operational units in the cases, this meant that they needed to be present in the area, which implied that they had to operate relatively dispersed. This way of operating had many consequences for the way units had to deal with dynamic complexity. For example, the superior officers were often not present at the scene of action when operational units went on patrol or on a convoy. This meant that on-scene commanders had great responsibility both for safety of the units as for the goods. In the Logtbat case on-scene commanders had to deal with all kinds of problems themselves, without being able to ask a superior what to do. Interestingly, and a point that will be worked out later in this study, superior officers did try to control the behavior of operational units when the situation in Bosnia had stabilized significantly. Due to the calmer circumstances and the improved means of communication they had better abilities to do so in this operation.

The foregoing will have made it clear that dealing with dynamic complexity is a problem that can – quite easily – be observed in the everyday experiences in the cases. It was certainly recognizable that, on the one hand, units struggled to determine the nature of the environment and the meaning of events, and on the other hand struggled to determine what to do. The practical problems reveal the abstract structure of dealing with dynamic complexity. On the basis of this observation it is assumed that peace operations are operations in which military units can be confronted with dynamic complexity. Therefore, I conclude that dynamic complexity is a relevant core concept. It follows that these military units need to be able to deal with dynamic complexity⁶.

1.4 The implications of choosing 'dynamic complexity' as a core concept

The previous section has made it clear that 'dynamic complexity' can be recognized as a central theme in the experience of operational units and can therefore be used as a core concept in this study. This choice repre-

⁶ The following note should be added to this line of reasoning: the importance of the problem of dealing with dynamic complexity is not only deduced from the case material, it is known from theory as well. If the problem of dealing with dynamic complexity might not have been visible in the case studies, this theoretical knowledge would have been a sufficient reason to justify the choice for dynamic complexity as a core concept.

sents the *reduction phase* of the development of a grounded theory and it is the starting point for this study. However, before the goal and central questions of this study can be presented, this section needs to address two crucial issues. What are the implications of stating that dynamic complexity is a central theme? In other words, if one states that dynamic complexity is a central theme, what does that mean for the units that are (to be) engaged in this situation? What are the implications for this study? After clarifying the consequences of taking dynamic complexity as a core concept, the central issues at stake in this study can be identified.

The implications of choosing dynamic complexity as a core concept

In order to pinpoint the implications of using dynamic complexity as a core concept, attention should be paid to a particular aspect of the presented abstract structure of this problem. If units are confronted with dynamic complexity, they are confronted with problems for which no clear-cut rules or procedures are available. That is to say, there are no rules available that make the problem of dealing with dynamic complexity a matter of mere rule-following. The essential nature of the problem of dynamic complexity is that such rules and procedures are in principle not available.

Due to the nature of dynamic complexity, operational units cannot be told in advance how to deal with every single problem. Furthermore, a central commander removed from the scene of action, lacks the insight into the local circumstances in order to make direct supervision a likely option. He depends on the operational unit for a description of the situation (which is inevitably colored by interpretation). Also, if such a central commander does formulate an order, the implementation of this order is still something that inevitably requires interpretation on the side of the operational unit. Different kinds of rules help to create a *workable level of certainty* (Weick, 1979). However, due to the elementary nature of dynamic complexity, rules cannot transform all uncertainties into certainties⁷. This implies that it is impossible to design a rule system that makes dealing with dynamic complexity a job of mere rule-following. If the activities of operational units could be totally submitted to a set of rules, then indeed there would be a perfect science of dealing with dynamic complexity. The consequence of this is that dealing with dynamic complexity necessitates *thinking* instead of rule-following (see for a justification for this distinction, Billig, 1996).

⁷ Shalit (1988, p. 147) formulated this dilemma as follows: 'The more confusing the situation, the greater our dependence on predetermined patterns of behavior. However, the greater our dependence on prelearned and unquestionably accepted routines, the greater the danger that we will be unable to adapt to unexpected conditions that do not fit our routines. What is gained in terms of coherence of perception may be lost in terms of incongruence of response.'

The consequences for this study: the issue of design

Because of the nature of dynamic complexity, operational units possess a particular degree of ‘natural’ autonomy. Autonomy is defined here as ‘freedom that exists to deal with problems’⁸. This definition indicates that a system possesses a certain degree of freedom in reacting to the environment⁹. Consequently, both the crisis organization and the mother organization do not have absolute control over the operational units. This is a statement of logical necessity: if the environment is dynamically complex, then the organizational context does not have absolute control¹⁰. As a consequence, the Army as an actor in such environments is confronted with different problems: (1) the operators in the operational units are confronted with the need to act meaningfully (one certainly does not want them to act randomly). Meaningful action refers to the fact that units need to be able to react sensibly to the challenges of their environment without there being a set of prescriptive rules that can be applied straightforwardly; (2) the larger crisis organization is confronted with the problem that they need to design and control units that are confronted with such an environment; (3) the mother organization is presented with the problem that it needs to be able to design crisis organizations and operational units that can deal with such environments. If the Army engages in circumstances in which it cannot control its operational units in an absolute way, it should design units that can deal with this natural autonomy in a sensible way. This is a normative stance: if the environment necessitates thinking, then operators should be able to think.

⁸ It should be added that in particular ways the autonomy of operational units is limited. In important ways, operational units are dependent upon the organizational context. One could say that operational units also possess a ‘natural lack of autonomy’ because they are part of a larger organization and because this larger organization is performing a complex operation. Although the autonomy of operational units is limited it is inevitable, as a consequence of the nature of dynamic complexity. This has important consequences for the position of operational units and their necessary competences. Therefore De Sitter (2000) would call them ‘semi-autonomous’.

⁹ De Sitter (2000, p. 72) stated that autonomy of a system refers to the issue that “an external influence can eventually cause a local change in the internal structure of system x, but that the nature of the resulting [change] (...) is also determined by something ‘typical’ in the internal structure of the system itself” (my translation).

¹⁰ This argument shows how the organizational context can regain control over operational units: it can turn down its level of ambition. However, it is assumed here that this option is in principle impossible for an organization as the Army, since this organization is made for difficult circumstances.

At this stage I want to introduce a concept that will become important in the rest of this study, namely the concept of self-organization¹¹. In this study, self-organization is understood in its abstract sense: because of the nature of dynamic complexity, operational units have to perform these organizing activities themselves. In a literal sense they are therefore self-organizing¹². The Army should be concerned with creating operational units that are able to deal with dynamic complexity in the best possible way¹³. In light of the previous discussion this claim means that the Army should be concerned with designing operational units with capabilities for self-organization¹⁴. This is an issue of design: the Army should equip the units in a particular way in order to enhance their capabilities of self-organization. It is supposed that this design issue is located at the levels of the crisis organization (which directly designs operational units, f.e. Logbat) and the mother organization

¹¹ This concept is also popular in the complexity research within the natural sciences. It refers to the phenomena of self-assembly that many systems display in order to adapt to complex environments. In this case, the phrase *systems* is understood in a broader sense. This kind of self-organization refers to emergent order in computer programs (Holland, 1995), biological systems (Kaufmann, 1995), natural systems (Prigogine, 1996), and even piles of sand (Bak, 1999).

¹² The sociotechnical approach uses this concept to describe the crucial qualities of self-managing work groups (Kuipers, 1989a; Kuipers & Van Amelsvoort, 1990; Morgan, 1997). Within sociotechnical literature, self-organization is often understood in a concrete sense. It refers, for example, to planning systems that workgroups can use in order to have a certain amount of grip on the proceedings in their jobs (Kuipers & Van Amelsvoort, 1990).

¹³ This seems to contradict the earlier assumptions that were expressed. After all, how can one judge whether a unit dealt with dynamic complexity in the right way if at the same time one claims that it is a problem for which no right solution exists? How can one speak of “the best possible way” if the defining characteristic of the environment is that certainty itself is unavailable? On the more practical side of doing research: how is it possible to criticize the way operational units dealt with practical problems from such a distance? Furthermore, “constructionist” theory frequently is very cautious, if not outright dismissive of normative questions as they appear to import an “objectivist” way of thinking. Notwithstanding the theoretical, practical and methodological prohibitions, it is obvious that the question whether or not units dealt with complexity in the best possible way is very important for the Army. If one claims that “it is impossible to tell”, one condemns the organization to apathy regarding this crucial part of its operations. Therefore this question will not be avoided in this study, but rather, the issue will be taken up.

¹⁴ Generally speaking, the essence of the position in this study is that no attempts will be made to criticize the tactics that units used for dealing with practical problems. In other words, no attempts are made to take a normative stance towards the content of this process as they are exhibited in the case studies. Instead, attention is focused on the characteristics of the organizational system that is active in the dynamically complex environment. It will be claimed that although it is impossible to design a closed system of rules for dealing with dynamic complexity, it is possible to develop rules for the design of the organizational system involved.

(the Army in general)¹⁵. The capability of designing such units marks one of the most crucial qualities of the Army organization as an organization that is serious about performing a certain type of mission. This issue will be taken up in this study and the existing case studies form the basis of the analysis. Since the cases draw a picture of everyday life during peace operations, they also give a picture of the possibilities and limitations operational units experience in dealing with certain problems.

1.5 The goal and central questions of this study

The various exploratory case studies not only show the practical problems that units were confronted with, they also provide information on how these units were organized and show the insights of operational units, but also show what was lacking in that respect. They show what units could decide for themselves, but also when central commanders intervened. To put this into a general statement: the cases provide clues about how the Army organization engages dynamically complex environments. The goal of this study can therefore be formulated as follows:

Developing insight into the ability of the Army to deploy units that are able to deal with dynamic complexity in peace operations. This insight will be developed by:

1. Analyzing the way in which the design of the operational units in the exploratory cases influenced their ability to deal with dynamic complexity;
2. Reconstructing the influence of the mother organization on the design options of crisis organizations.

The first characteristic of the ‘substantive theory in progress’ implies that it is attempted to find ‘deep structures’ in the case descriptions, which means performing a meta-analysis of the case studies. The second characteristic means that the influence of the mother organization on the crisis organization needs to be reconstructed. This implies the gathering of extra data on the characteristics of the mother organization.

The relevance of the study

As this study has an ambitious goal, it is necessary to address the scope of its ambition. There are certain limits inherent in the reflection. The case studies were never meant to provide insight into the self-organizing capabilities of operational units. The emphasis in this study is therefore on *explor-*

¹⁵ Later in this study this will be referred to as the *direct* and *indirect design* of operational units, respectively.

ing available case material. In other words, the emphasis is on *finding clues* in the cases about the influence of the design of the operational units on their ability to deal with dynamic complexity, and on *reconstructing* how the mother organization influences crisis organization. One may state that this enterprise is limited by the fact that the cases were never intended to perform such analyses. This study is therefore, one could say, located in the *context of discovery* rather than in the *context of justification* (Kelle, 1995). In other words, this study is not focused on testing hypotheses, but on developing (discovering) *useful hypotheses* about the ability of the Army to deploy units that are able to deal with dynamic complexity. The substantive theory is therefore made up of such hypotheses. The relevance of developing such a substantive theory is that it should support the Army in developing itself as an organization that is involved in crisis operations. The final chapter of this study is therefore devoted to the identification of topics of further research and of topics for the development of the Army as an organization that is involved in peace operations.

Central questions

In order to develop a complicated substantive theory, formal theory is needed. The concept of self-organization needs to be clarified. It needs to be identified what is the nature of dealing with dynamic complexity and how it can be organized in the best possible way. Furthermore, theoretical reflection should explicate how to observe this abstract ability in the case studies. The necessary formal theory needs to be abstract enough to grasp complicated concepts as ‘dynamic complexity’ and ‘self-organization’ and concrete enough to be able to apply it to the existing cases. Furthermore, the formal theory needs to be normative because it is explicitly the object to study how the ability to deal with dynamic complexity is influenced by (1) the crisis organization in the cases and (2) the mother organization in general. The formal theory will be gathered by developing an analytical framework. This framework will be built up of existing theoretical insights. All in all, this goal of this study can be achieved by answering the following questions:

Questions referring to the development of an analytical framework:

- 1. How can a system deal with dynamic complexity in the best possible way?**
- 2. How can the organization of doubt be observed in the cases?**

Questions referring to the analysis of the cases and the mother organization:

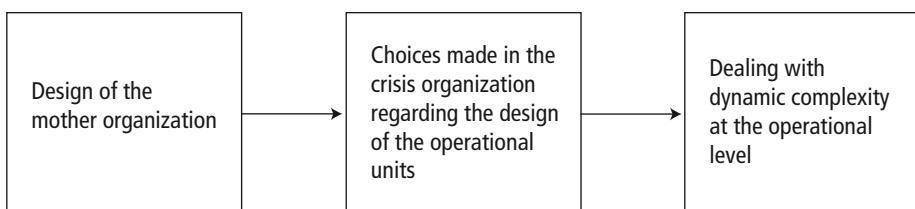
- 1. How was the problem of dealing with dynamic complexity influenced by the design of the operational units?**

2. How is the possibility of designing self-organizing units in crisis organizations influenced by characteristics of the mother organization?

This study consists of six parts. In parts two, three, four, and five, a specific research question will be at center stage.

Conceptual model

The different analyses that are performed in this study can be represented in a conceptual model:



Model 1.1

The conceptual model describes the structure of the substantive theory that will be developed: it should provide insight into how the mother organization *structurally* influences (*all*) crisis organizations. Furthermore, it should provide insight into how the crisis organizations *in the cases* influenced the ability of the operational units to deal with dynamic complexity. As such, it provides insight into how characteristics of the *general* (the Army) influence proceedings in the *local* (the operational units). It should be emphasized that this conceptual model reverses the logic of the various analyses, so to speak. After finding clues in the local (the experiences of the operational units), this study explores how the design of the units influenced these experiences. Subsequently, it is explored how the proceedings in the crisis organizations were influenced by constraints in the mother organizations. In other words, the conceptual model suggests top-down logic, while this study performs a bottom-up analysis. This is a deliberate ‘reversal’. For the substantive theory to be relevant beyond the local level, it should be orientated to ‘general’ mechanisms. Subsequently, the general is relevant so far as it can be defended that it has influence on the local.

Important definitions

At this moment it is necessary to pin down the meaning of a couple of central phrases used in this study. I should emphasize that I formulated these definitions. In this study, a distinction is made between the operational, the tactical, and the strategic level of an organization: the operational level is the level where the actual work is done, the tactical level is the level where

the various operational units are designed and controlled, the strategic level is the level where the general direction of the organization is established.

It should be added that this is a conceptual distinction that does not refer to a specific idealized division in hierarchical levels. In an organization events can have operational, tactical, and strategic consequences and therefore operational experiences are extremely relevant for strategic discussions. These definitions differ from military definitions in important ways¹⁶. Following the distinction in organizational levels, I will use a distinction between operational units, the crisis organization, and the mother organization.

- An operational unit is considered to be a unit at the shop floor. This means that an operational unit is the one that does the actual work (going on patrols, transporting goods, etc.). The operational unit is the part of the organization that is most directly confronted with operational complexity. Therefore, it is the center of attention here. What makes these units particularly interesting is that they are in direct contact with the environment. The problem of dealing with dynamic complexity will be perceived from the perspective of the operational level.
- A crisis organization is an organization that is designed for the purposes of a specific peace operation. As will be discussed in greater detail later in this study, crisis organizations are task forces. Task forces are organizations that are built up from the mother organization for the specific purpose of a particular operation. As such, task forces are temporary organizations. The operational units are a subsystem of this crisis organization and are in many ways the tentacles of the crisis organization in the environment. To clarify this distinction with an example: Dutchbat was a crisis organization; the various platoons of Dutchbat were operational units. It is the crisis organization that designs and controls these units and divides tasks among them. Therefore the crisis organization is the immediate organizational context for the operational units.
- The mother organization refers to the Army in the Netherlands. The Dutch Armed Forces consist of the Navy, the Air Force, the Army and the Military Police. The Army is the part of the organization I am interested in. It is relevant for this study because the crisis organizations in the cases were assembled from the Army. They were designed for the purpose of a specific operation. The mother organization is the remote organizatio-

¹⁶ According to the military doctrine, the military strategic level is the level where the systematic deployment of military means of a state is discussed. The operational level is the level where the strategic goals are translated into the design and control of campaigns. The tactical level refers to the deployment of units in order to reach the operational goals. The technical level refers to the deployment of small units and sometimes even individual soldiers (Military Doctrine, 1996, pp. 12–16). What is called “operational” and even “tactical” in this study is called ‘technical’ in the military doctrine.

nal context for units and supplies the basic building blocks for the crisis organization.

1.6 An overview

The first part focuses on explicating the architecture of this study and on justifying the different methodological steps. The second and third part focus on the theoretical issues of this study. In these parts, the analytical framework will be explicated. The reflections upon the existing cases will be performed in part four. The reflections on the mother organization as a provider of means will be conducted in Part Five. Part Six is not really a part as such because it consists of just one chapter, but it can be logically separated from the previous parts. In this final part, there will be a reflection on the results of the analyses in this study.

Methodological considerations

This chapter consists of three distinctive parts. The first part discusses relevant methodological aspects of the original case-studies. In the second part, the methodological structure of this study is worked out. This part explicates the various methodological choices and should clarify how they are connected. The third part positions this study's methodological structure. In this part, the methodological position of this study will be dealt with.

2.1 Methodological characteristics of the case studies

This study aims to build a substantive theory upon the foundations of the original exploratory case studies. These cases are part of the exploratory phase and specification phase of the research project. As will be discussed, these cases have certain structural weaknesses for the purposes of analysis. The major structural weakness is that the cases were exploratory and were never designed to be used for the sort of analyses that are made in this study. That means that at certain points some clever reconstruction work needs to be done. Apart from certain structural weaknesses the case studies possess an important structural strength. The cases provide an interesting insight into the everyday experiences of the military units during different peace operations. Multiple member checks confirmed the validity of the picture that emerged from these cases.

Research projects at the Military Academy

In order to understand the nature of the research project this study is part of, first it is important to become familiar with the position of the Royal Netherlands Military Academy (to be called Military Academy in the rest of this study) as a research institute. The Military Academy in Breda educates cadets for officer positions in the Army, the Air Force, and the Military Police. It is the Academy's ambition to provide education at an academic

level, and because of these academic ambitions, the Military Academy has a research program. The position of this program within the organization is different from the position of staff departments conducting ‘policy research’, i.e. research that is performed on the basis of explicit needs of policymakers. The scientific staff has the freedom to study a variety of topics with relevance for the Dutch Armed Forces and has the freedom to publicize the results openly. The research program is not directed by policymakers, which implies that the research program at the Military Academy possesses a particular kind of independence. One can imagine that this independent position is essential for the Military Academy. On the one hand it is important because of the scientific pretension of the research program; on the other hand it is important because it grants the scientific staff a position that is independent from ‘office politics’ at the Ministry of Defence in The Hague (in colloquial speech referred to as ‘The Hague’). This means that scientists can take up topics that are not ‘popular’ in ‘The Hague’ or that run against the personal interests of individuals within the organization. In other words, a scientist at the Military Academy is at the same time an insider and an outsider and one can imagine that this position is of particular importance to both the scientists and the organization. This last kind of independence has been of particular importance for this study. Before this study was conducted it had already been clear that the style of thinking used in this study differs significantly from ‘mainstream’ thinking within the Dutch Armed Forces. An implicit goal of this study has been to confront the organization with such a different way of thinking, and to show what becomes visible if this way of thinking is applied to the central topics of this study. The results of this study are directly used in the cadets’ educational program. Indirectly this study is used to confront the organization with this different way of thinking and to inspire new research.

Exploratory phase

The research project started with two exploratory case studies. The goal of these case studies was to develop insight into the nature of the experiences of the soldiers that had been deployed in peace support operations. During this phase the project group conducted the following activities:

- Research questions for the first exploratory cases were formulated¹⁷;
- The first cases were two Dutch units that had been engaged in peace operations. The criterion for selecting these cases was quite straightforward: Logtbat and Dutchbat were the only two integral units that had been

¹⁷ 1. What are the problem situations junior leaders in crisis situations are confronted with? 2. How do they handle these problems? 3. How effective was the way in which they handled these situations? 4. What lessons can be drawn from the way in which junior leaders handled problem situations? (see Vogelaar 1996a, p. 2.)

deployed in peace operations at that time. Dutchbat was an infantry battalion that had been deployed in the Safe Area of Srebrenica. Logtbat was a transport battalion that had transported humanitarian goods in the first half of the 1990s. These two battalions will be discussed in greater detail later in this study;

- Members of the organizations were individually interviewed after their return to the Netherlands. In the interviews, the respondents reflected upon their time in Bosnia on the basis of the leading questions of the research project. All members of the project group conducted interviews (one or two interviewers interviewed one respondent);
- Data was gathered for both Dutchbat and Logtbat¹⁸. The interviews were open; the research questions were used as a guideline. The respondents were soldiers from various ranks (from private to lieutenant-colonel);
- The material was transcribed;
- It was attempted to develop a framework for understanding the experiences. It was decided to first focus on the Dutchbat case and to attempt to interpret the events using an existing theoretical model. This attempt was disregarded because the members of the project were of the opinion that the theoretical categories did not do justice to the experiences as they emerged in the interviews.

A second attempt was made to develop an analytical framework. In a group discussion, the researchers came to an analytical framework that was in direct line with the experiences in the cases. The categories of the framework referred to specific ‘problem situations’ of junior leaders and the way they dealt with these (‘dealing with danger’, ‘dealing with shortages of supplies’, etc.).

Specification phase

After the analytical framework had been developed, the material was subsequently analyzed using this framework (‘selective coding’). On the basis of this analysis and after a member check, a first exploratory case study was published (Vogelaar c.s., 1996a). After this publication, the Logtbat case was worked out. Firstly, additional interviews were conducted, using the analytical framework of Dutchbat as a topic list. On the basis of the interviews it was decided to drop certain categories of the Dutchbat framework (e.g. ‘dealing with shortages in supplies’) and to add a couple of categories with which the experience of Logtbat (e.g. problems en route) could be covered. Using the Kwalon instrument (Wester & Richardson, 1989), the transcribed interview material was analyzed. After a member check, the second

¹⁸ For the Dutchbat case a total of 18 people were interviewed and for the Logtbat case a total of 28 people.

case study was published (Vogelaar c.s., 1996b). After both exploratory case studies were finished, they were published together (Vogelaar c.s., 1997a). This is relevant because in this publication the case descriptions were reflected upon in an epilogue. In this epilogue the topic of ‘environmental uncertainty’ was used to reflect on the experiences (using the classification of McCaskey, 1985).

At a later stage a third case study was worked out. This case was orientated to a particular SFOR rotation. At the time more units were active in peace operations, but the reason for selecting SFOR was that (a) again, it involved a larger unit, (b) the operation was in a sense ‘riskier’ than, for example, a peace operation in Cyprus, which was also an option at that time. In other words, dynamic complexity was more likely to be a problem in Bosnia than in Cyprus. The methodological procedure used before was also used for the SFOR case. Interviews were conducted with members of different ranks in the organization¹⁹. The interviews were topic-guided, using the topics that were used for Logtbat. Subsequently, the interviews were analyzed using the existing system of categories (selective coding). Again, it appeared that the existing analytical framework did not quite match the experiences of the SFOR battalion. After a group discussion, the analytical framework was adjusted to fit the experiences of SFOR. The interviews were subsequently analyzed using the adjusted system of categories. Eventually, again after a member check, this resulted in the publication of the third case (Vogelaar, c.s, 2001).

2.2 Methodological structure of this study

As was mentioned in chapter one, this study is located in the reduction and integration phase of the Grounded Theory process. The methodological structure of this study is discussed by addressing a number of topics. Subsequently, the ins and outs of the research strategy, the method of data collection, the procedures for data analysis, and the analytical framework are discussed.

Research strategy

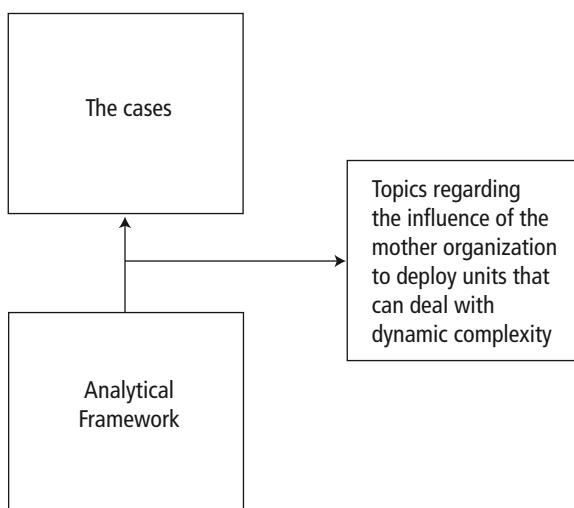
In order to clarify the design of this study a – what Verschuren & Doorewaard (2000) called – *research model* is presented here. This model consists of three basic ingredients. First, the *goal* of this study is presented at the right hand side. The research activities should result in reaching the goal of the study. Secondly, the *object of study* is specified. Thirdly, the *research perspective* is specified. This perspective refers to the way the object of study

¹⁹ For the SFOR case, a total of 26 respondents were interviewed.

is perceived. Central to the research strategy of the approach in this study is what Verschuren & Doorewaard (2000, pp. 50–51) called ‘a confrontation’. This confrontation should eventually result in insight into the ability of the Army to deploy units that are able to deal with dynamic complexity in peace operations. The case studies and the mother organization constitute the research object. This research object is ‘perceived’ from an analytical framework. Applied to this study, two research models can be distinguished, one for part four and one for part five:

Part Four

Research design:

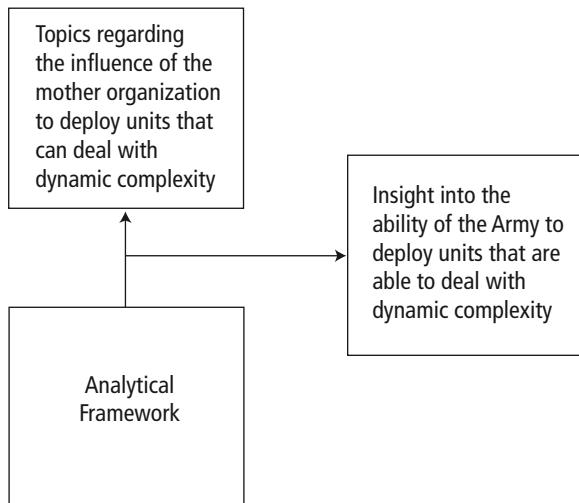


Model 2.1

From the perspective of an analytical framework, cases are explored, resulting in *topics*. These topics are organizational aspects of the mother organization considered to have an influence on the ability of crisis organizations to design self-organizing operational units.

Part Five

Research design



Model 2.2

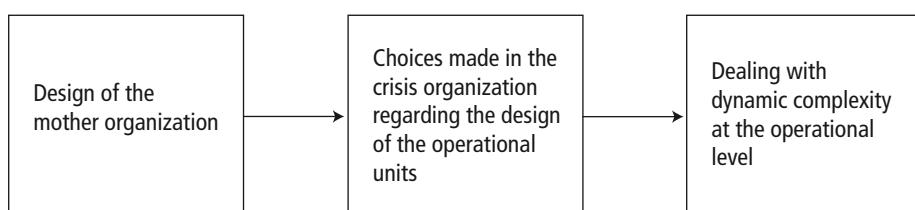
The topics identified by the analysis in Part Four are explored and analyzed in Part Five in order to develop insight into the ability of the Army to deploy units that can deal with dynamic complexity. Again, the analytical framework developed in Part Two and Part Three is central in this analysis.

Selection of the cases

All the exploratory case studies that were performed by the research group are analyzed. One could therefore say that this study chooses a ‘no selection’ criterion of selection.

Data collection

In order to develop the substantive theory, various types of data need to be collected. These types of data can be deduced from the conceptual model displayed in Chapter One:



The conceptual model indicates that three types of data need to be collected: (1) data about dealing with dynamic complexity at the operational level, (2) data about the design of the operational units, and (3) data about the mother organization. For the data types (1) and (2), the original case studies are the sources of data. For data type (3), various types of data have to be collected. Here the various types of data are discussed in more detail²⁰:

1. The original case studies described the problems leaders of operational units were confronted with and how they were dealt with. As such, they provide insight into the daily affairs of the operational units, also (but not exclusively) about the problem of dealing with dynamic complexity. In order to collect data about dealing with dynamic complexity events should be selected. Theory is used to select the relevant events from the cases. As this theory has not yet been discussed, for the specific way in which this type of data is extracted from the cases please refer to the discussion on this subject in section 10.7;
2. Although the case studies were not orientated to analyzing the design of the various crisis organizations, there is information available about the organizational context that operational units operated in. With the use of theory, this information about the organizational context can be selected. This means that theory fulfills an important function (a) in developing an idea about what the crucial design characteristics of operational units are, and (b) in selecting relevant information about the relevant characteristics of the design of the operational units. As this theory has not yet been discussed, for the specific way in which this type of data is extracted from the cases please refer to the discussion on this subject in section 10.7;
3. The third type of data is of a different nature. Data about the nature of the mother organization cannot be derived from the cases. Again, theory is used to select the relevant characteristics for the mother organization. The selected characteristics are analyzed for their influence on the design of operational units. Data will be gathered from different sources (military doctrine, articles, intranet, etc.) in order to obtain the required picture. It is important to develop a non-controversial characterization of the mother organization. The specific way in which information about characteristics of the mother organization is collected is specifically discussed in the various chapters of part five.

²⁰ In the discussion of all three types of data, the importance of the analytical framework as a tool of selecting data is underlined. The implication of this is that only after the development of the analytical framework the data that will be collected can be specified in more detail. This will be the topic of section 10.4.