

Topic 2: C2 for Complex Enterprises (collections of military and civilian entities)

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Words Matter: An Updated Conceptual Framework for Managing Joint Operations in Civil Crises and Armed Conflicts

Christian Uhr

Adjunct professor

Swedish Defense University, Lund University & MSB

christian.uhr@risk.lth.se

Address: Division of Risk Management and Societal Safety, Box 118, 221 00 Lund, Sweden

Mikael Frisell

Director General, Major General (ret.)

Swedish Contingencies Agency (MSB)

Address: Myndigheten för samhällsskydd och beredskap, 102 50 Stockholm, Sweden

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Christian Uhr
Swedish Defense University,
Lund University & MSB
christian.uhr@risk.lth.se

Mikael Frisell
Swedish Contingencies Agency
(MSB)

Abstract

This paper argues for the benefits of a consistent conceptual foundation to function as a common ground in collective efforts to improve crisis management capability. It shows how systems thinking and contemporary cybernetics can be transferred from academic publications to policy documents in a Swedish crisis management context, where numerous heterogeneous organizations must act together - rather than in parallel - to achieve best possible outcomes. The guiding principle behind the efforts has been not to replace the many pre-existing intraorganizational crisis management discourses, but rather to promote a second language including descriptions of key terms, and, importantly, how they fit together and can be applied in a whole of society approach. Initially, a brief historical overview is presented followed by a short presentation of theoretical starting points. Then, a summary of the updated conceptual framework for joint operations and its guiding assumptions and values is described. Finally, experiences from the joint development process are systematically presented, followed by reflections on the implementation process.

1 INTRODUCTION

The success of collaborative efforts in demanding situations, such as major civil crises or armed conflicts, hinges on a shared conceptual understanding of key terms used to capture the many facets of management. Without a cohesive joint conceptual framework, organizations may struggle to align their efforts, leading to fragmented and ineffective responses that, in a worst-case scenario, can exacerbate the situation.[1][2][3]

Since 2013, the Swedish Civil Contingencies Agency (MSB) has been working to implement a conceptual reasoning - often described as a "second language" - to improve collaboration in joint response efforts between organizationally and culturally diverse entities. The Conceptual Foundation was updated and reframed in 2024 [4], and clarifies the meanings of key terms such as command, collaboration, direction, and coordination in a multi-organizational context. Moreover, it aims to connect partially disconnected concepts and add visualizations that can be useful in lecturing and practical analytical work during joint response operations. The Conceptual Foundation is based on contemporary

cybernetic theories that embrace complexity thinking [5] while still relying on the fundamentals suggested by Brehmer, as captured in his early work on dynamic decision-making [6] and his award-winning paper, "Harmony of Efforts", from 2011 [7].

In this paper, we present a coherent conceptual reasoning, based on system science and contemporary cybernetics, aimed at a diverse collective of organizations that need to come together in times of civil crises and armed conflicts. The content partly deepens the theoretical basis underlying the current policy document [4] from MSB.

Furthermore, we summarize the experiences from updating the Conceptual Foundation as a collaborative effort. Finally, we reflect on the implementation and the potential impact on a nation's response capabilities.

One of the authors of this paper has been engaged in both the previous efforts to develop and launch a joint conceptual framework and in the subsequent work on a new version launched in 2024. He has been engaged as a scientific advisor with the aim of maintaining and supporting a connection to the scientific community and

its relevant discourses. The other author represents the highest managerial level at MSB, responsible for the internal and external implementation of the new Conceptual Foundation for joint operations.

The overall aim is to highlight the need for a common ground [3] in capacity development and joint operations, and to inspire others to take on the sometimes thankless task of trying to harmonize not only the actions, but also the thinking, of very different crisis management actors. By sharing academic reasonings behind the conceptual framework, the paper can serve as a contribution to further discussions on how the management of joint operations should be represented in theory. In addition, the insights from both development processes and implementation process can contribute to the design of similar projects in other contexts.

2 A SHORT HISTORICAL ODYSSEY

It seems to be a general problem that different organizations working together to manage crises tend to talk past each other, using internal jargon that doesn't contribute to consensus across organizational boundaries. [8][9] However, whilst the problem is most likely as old as modern society, it becomes clearly apparent when trying to push for joint capacity development.

Around 2007, work began in Sweden to try to contribute to a coherent development of the county administrative boards; the actors who were responsible for managing crises at the regional level. Their responsibility consisted - and still consists - of ensuring that different resources within the geographical area are used as efficiently and effectively as possible. In other words, to ensure that society's combined resources achieve the best possible effects given the conditions. This development was spearheaded by MSB in collaboration with the county administrative boards. As part of a training initiative, there were presentations on systems theory, and how to think about the governance of multiple organizations as complex systems.

Based on a series of evaluations, work began shortly thereafter on a common doctrine for all actors. The term doctrine was not used explicitly, as it was considered to have too much military connotation, but the content was reminiscent of what is found in military doctrines, i.e., a common frame of reference. Much of the basic reasoning about command and collaboration was already then based on systems thinking and cybernetic reasoning, but the language had been popularized. Parts of the conceptual reasoning from the 2014 edition are also reflected in an earlier ICCRTS publication by Ekman & Uhr

[10].

In the following years, there was little criticism of the conceptual reasoning. However, it became clear that parts of the message were not easily digestible. Reasoning about command and collaboration as functions based on design logic [11], with the aim of getting one system to influence another, appeared too theoretical and hard to apply. Meanwhile, other parts of the doctrine - for example, reasoning about different mindsets, such as the understanding of multiple perspectives, maintaining a holistic view, proactivity, etc., all of which were fundamentally linked to a systems approach - were considered to have been adopted and applied in the way intended.

Before the pandemic broke out in 2020, MSB decided to begin a major update of the old doctrine, partly based on new experiences from crisis management, but also on the experiences from the long-term implementation of the previous one. During the development work, changes occurred in the security environment, giving rise to an additional direction for the project; to allow armed conflict to be the defining factor. Importantly, this new paradigm did not push the theoretical baseline away from systems thinking and cybernetic logics. Rather, the opposite was true, motivated by the reasoning of for example Beyerchen [12] where he convincingly argues that Clausewitz (well ahead of his time) relied on complexity thinking arguing that war is a nonlinear phenomenon.

Well aware of the pedagogical challenges associated with systems theory, a decision was made not to abandon the fundamental ontological standpoint suggesting that society and its resources is characterized by complexity. A more reductionist belief would perhaps facilitate communication, but one must ask if "simple and naïve" really should trump "challenging but reasonable". This is not to say that all crisis managers must be forced to wander around in philosophical mazes, but to suggest that the basic assumptions behind managerial tools should not be mechanistic or rely on obsolete theories.

3 CYBERNETICS FOR THE 2020'S CRISIS MANAGERS

Norbert Wiener's pioneering work from 1948 [13] is commonly referred to as the origin of cybernetics. Wiener focused on control, feedback loops, and information processing in both machines and organisms and wanted to unite engineering, biology, psychology, and social sciences through a common language of feedback and information. This first-order cybernetics focused on the observation and control of systems from the outside,

drawing heavily from mathematical modeling, control theory, and information theory.

This first-order cybernetics faced criticism on several fronts. It was criticized for applying a reductionist approach [14], philosophers meant it could lead to social control and dehumanization, and the famous sociologist Jürgen Habermas argued that it was a too technical-instrumental reasoning, neglecting communicative action and normative deliberation. [15]

Bertalanffy's General System Theory [16] - along with the later developments embracing non-linearity, self-organization, and interdependence - argued that feedback alone wasn't enough to understand complex wholes. Over time, cybernetics incorporated these ideas, evolving into second-order cybernetics, which emphasizes the observer's role, reflexivity, and system-of-systems thinking. The move towards complexity theory can therefore be seen as a natural evolution of cybernetics that addresses many of its earlier criticisms. As such, today, cybernetics discusses feedback and feedforward as something contextualized within multi-nodal open systems, rather than closed control loops.

Influential publications within the The International Command and Control Institute, such as Network-Centric Warfare [17] and Power to the Edge [18], incorporate the logics of cybernetics and complex system theory. As society grapples with socio-technical systems of growing complexity, cybernetics in its newer incarnations can be seen as powerful tools for understanding dynamic, feedback-driven phenomena.

To sum up and simplify: from a crisis manager's perspective, contemporary cybernetics imply using one system (compilation of resources) to influence another system (the hazard, enemy, etc.) in a dynamic uncertain environment. Systems should therefore be approached from a complexity perspective embracing a non-linear and self-regulating behavior. Resources that are supposed to be managed (using, for example, C2 or collaboration) are not configured as a machine that can be controlled from the outside. And, an understanding of multiple system perspectives is fundamental for making the best possible use of resources.

In connection with the reasoning above we want to address the CYNEFIN framework [19] (pronounced kuh-nev-in), often referred to in the management of civil crisis and military conflicts. CYNEFIN describes five different decision contexts: clear, complicated, complex, chaotic, and a center of confusion. It can be seen a support for sensemaking [20] and draws from various branches of system theory. The core idea in a management situation

is to support the decisionmaker to identify functional strategies to influence the crisis situation. Sometimes the decision context can be approached from a traditional linear cause-and-effect perspective, but other times it must be understood as non-linear environments where every action taken can change the situation in unpredictable ways due to inherent complexities. From a practical standpoint, many organizations find the CYNEFIN helpful [21], but from an academic perspective critical questions have been asked. For example, how it more explicitly relates to systems theory, especially when it comes conceptual ambiguities [22], as well as the unclarity in relation to ontological and epistemological assumptions [23].

4 THE NEW CONCEPTUAL FOUNDATION

In this section we begin by providing an overview of the entire framework consisting of many different interconnected parts. Then, we focus on the fundamental piece serving as a basis for joint thinking and joint acting by suggesting a second language for all crisis manager – the Conceptual Foundation. This latter description is a selection and a summary of cornerstones of the updated foundation as communicated by MSB.

4.1 THE COMPREHENSIVE FRAMEWORK AS A WHOLE

In 2024, *Common Guidelines – A framework for Command and Collaboration for Managing Societal Perturbations* was published by MSB, a result of a collaborative effort, including over 60 organizations.

The framework contains prerequisites for management and development, Conceptual Foundations, mindsets, methods and standard operating procedures (SOPs). These elements are all considered crucial aspects of the managerial efforts needed for achieving joint direction and coordination, and thus generating effects when needed the most.

The structure of the entire framework is visualized below. (*Figure 1.*) Note that the different boxes in different colors hold various publications that are freely available via a website. All boxes representing different parts of the framework are connected, demonstrating the relations between different products. For example, the Conceptual Foundation at the bottom serves as an input to desired mindsets, that in their turn serve as input to working methods, etc. To the left, prerequisites, such as laws and regulations, technology and accessible research, are collected as design criteria for the products/publications in the colored boxes.

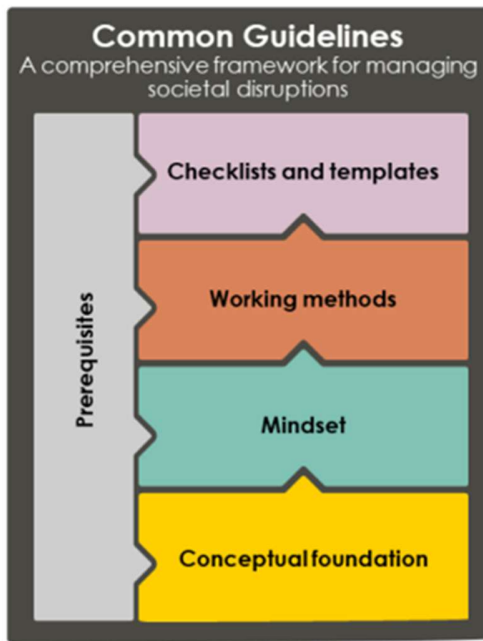


Figure 1. Visualization of the Common Guidelines as a complete framework consisting of related products.

The framework is designed to support planning and response management efforts on a local, regional, higher regional and national level. The content of the framework is designed for all actors that are responsible for, or contribute to, managing various societal disruptions. Actors can be public, private and non-profit organizations, including municipalities, regions, authorities, voluntary organizations, and/or companies.[24]

4.2 THE CONCEPTUAL FOUNDATION

4.2.1 Guiding assumptions and values

An important idea that runs throughout all associated texts is that the content in the Conceptual Foundation should be as simple as possible – but not simpler than that. Simultaneously, everyone who works with command and collaboration in a multi-organizational environment must accept reality and be aware that it is complex. Being aware of the complexity enables effective action in an environment where society's collective resources should achieve the best possible effects when they are needed most. In other words, things cannot be simplified to a degree in which the reasoning is not valid anymore.

The Conceptual Foundation contains a series of coherent tools as a basis for a common language and thinking. Several of the reasonings are summarized in illustrations but it is important to consider both illustrations and the associated reasoning as simplifications of reality. No

model can capture everything at once, and all models are based on individual selection and interpretations. As such, the conceptual framework calls for analytical humbleness.

A key part of the Conceptual Foundation specifies the substantive core of common concepts, such as “society’s collective resources”, “direction” and “coordination”. In many contexts, it can be important to set a clear definition by saying exactly what is included in one concept in relation to another. Within this particular framework, however, this is often difficult. An example is the relationship between command and leadership. The interface is blurry, and when trying to suggest one it becomes hard to get general acceptance. Instead, the defining reasoning starts from the center of gravity of a specific concept, i.e., substantive cores.

The entire framework is based on the need for “bilingualism”, which means that actors need to know both their own organization’s language and the common language. When different societal resources and actors are combined before and during a crisis, this common language is necessary. The central concepts form the very backbone in the common joint language, but there will always be certain linguistic variations in terms and concepts between different organizations. Understanding linguistic diversity is therefore a key competence for people who work with multi-organizational management.

4.2.2 Effect based reasoning

A basic requirement for being able to handle crises in peacetime and during heightened alert and war is that we have the capacity to do so. The term capacity is here defined as follows: “the ability to be able to achieve something with the aim of positively influencing the outcome of negative events.” [25] Capacity can thus be derived from a number of different resources, such as equipment, people and expertise. However, in order to have capacity, it is not enough that these resources are in place – they must also be able to conduct an activity that leads to effects, i.e., it becomes necessary to achieve something with the resources. Command and collaboration are about increasing the probability that the activities carried out will achieve the best possible effects. Effects usually mean that different types of needs are met, and a return to a desired state. Generating effects might be an obvious idea, but at the same time there is a risk that too much management focus remains on internal procedures.

4.2.3 The necessity of multiple systems perspectives

Since all systems are somehow connected into a system of systems, we need to mentally create system boundaries. It is simply impossible to take all systems perspectives into consideration at the same time. A systems perspective is thus a system boundary in itself, since we have chosen a certain “section” of reality. Being able to navigate between various system perspectives is an intellectual quality that is desirable for all managers, but especially for those who are engaged in managing joint operations including diverse resources from various parts of the society. [26]

4.2.4 Direction and coordination in joint operations

In order to achieve desirable effects in an efficient way, resources, irrespective of whether they belong to one or multiple organizations, need direction and coordination. According to the Conceptual Foundation, direction has to do with the question of whether we are doing the right things. Coordination has to do with the question of whether we are doing things in the right way.

In the event of a crisis, actors are often required to adapt to each other's work to a greater extent than in everyday life. In order for such adaptation to occur, actors often need to agree on a joint direction and joint coordination. The Conceptual Foundation differentiates between desired direction, commonly labeled as “intent”, and actual direction, meaning: Where are we actually going? Clearly, if there is a difference between intent and actual direction, there is a problem. The understanding of possible discrepancies between intent and where resources actually are heading can be linked to “control” in typical C2 discourses.

By coordination, the framework emphasizes the connection to efficiency and dealing with questions such as: who does what, where and when? Coordination is something that can be achieved through plans, or spontaneous synchronization.

How direction and coordination can be achieved depends on the configuration of resources involved. Do they belong to one organization, where there is a strict chain of command, or do they belong to many organizations and several parallel chains of command? Or do the resources belong to no formal organization at all?

4.2.5 Command, collaboration and other forms of governance

In a single organization, or in another organizational context relying on hierarchical C2, a desired direction (intent) can be formulated by a commander using his or her mandate. In a joint operation there is no unified chain of command connecting all possible societal resources, at least not in a western democratic country. Instead, a joint direction partly needs to be achieved through agreements. The tool for this is here referred to as collaboration. Sometimes collaboration is between two or a few organizations, and sometimes the context requires the engagement of many. When the representatives from the organizations have agreed on a direction, each representative needs to bring back such agreement to their own organization, and translate it into a formal decision guiding the efforts carried out by the organization's own resources within the scope of the organization's mission.

The same logic can be transferred to joint coordination. Based on a joint intent, a joint planning process can take place. Or, if decided, planning can happen in the different organizations separately. The Conceptual Foundation doesn't state how thing should be carried out in detail. Instead, such methods are placed on another level in the framework (see Figure 1).

Sometimes organizations who have not been involved in the collaborative efforts of coming up with joint intent may still choose to follow such an intent agreed upon by others. This aspect is not included in the definition of command or managerial collaboration. Nevertheless, just influencing, without command or joint agreements, is also a method of governance. It doesn't rely on an as strong mandate as traditional command, or social contracts such as agreements through collaboration, but can still be an important tool for achieving joint direction and coordination. This aspect is best explored through a leadership lens highlighting issues of, for example, trust and legitimacy.

4.2.6 Resources as systems

Together, all actors involved in a whole of society approach to crises form a so-called response system. [27] The actors in the response system are often organized in different ways and have different cultures. Some have clear decision hierarchies and many levels of management, while others are decentralized and organized like networks.

Many of the actors in the response system have what can be called a command system [28], with the aim to achieve

direction and coordination of the activities that are carried out. A command system consists of everything needed to be able to achieve direction and coordination, for example role descriptions, clear mandates, process descriptions, technical support systems, and, not least, people. The command system is where the overall decisions are made for the specific organization, or for the organizations, if a unified chain of command exist.

In addition to a command system, actors also have an execution system, or a system generating effects. It simply consists of the resources that carry out the decisions made.

As stated above, in the event of a civil crisis or war, representatives from several organizations sometimes need to meet and agree on a joint direction and perhaps also a plan leading to joint coordination. This organizational context can be seen as a collaboration system. The purpose of the collaboration system is mainly to support the joint understanding of the situation, reach agreements on direction (joint intent), and possibly develop and implement a joint response plan. A collaboration system has no execution system or system generating effects of its own. Rather, those systems lie within the various organizations. Each organization therefore needs to take the actors' common agreements on direction and coordination back to their own organization and implement this in their own operations.

A collaboration system can be anything from temporary to permanent. However, regardless of whether it is created in advance, or created in the moment, it needs to be adapted and designed based on the needs of the current situation.

4.2.7 Top-down vs bottom-up in complex systems

Since the conceptual framework relies on systems thinking, including complexity, it becomes important to acknowledge bottom-up behavior. Bottom-up behavior stems from the local adaptation taking place on a micro level in the system. Such phenomenon can both simplify and complicate managerial efforts and is one of several qualities enabling organizational agility. From a cybernetic perspective, management of systems to a certain degree implies finding a balance of bottom-up and top-down influences. [29]

In addition to these cornerstones, the Conceptual Foundation includes a reasoning on generic activities necessary for achieving direction and coordination irrespective of organizational context. Furthermore, it comprehends conceptual reasoning linked to leadership

across organizational boundaries.

Expectantly, the presentation in this section (4) will serve as an example on how systems thinking and cybernetics can be applied in a more practically oriented context, still requiring conceptual thinking. The reasoning may also serve as an input for theoretical development and discussions. In the following sections we will reflect on the development and implementation of the Conceptual Foundation highlighting both opportunities and difficulties that may be valuable for scholars and professionals involved in similar efforts.

5 THE DEVELOPMENT PROCESS – REFLECTIONS FROM THE INSIDE

5.1 WIDER ACCEPTANCE FOR ABSTRACT REASONING AMONG DEVELOPERS

Command and Collaboration, including processes and organizational forms, no matter how concrete they seem, belong to what Simon [30] calls the *science of the artificial*, meaning that we are all working with abstractions of reality.

Based on our experience from the development of various tools for joint operations, we can conclude that if there is no Conceptual Foundation available - or accepted - developers will invent their own, not least to motivate their design propositions. Since there are no objective answers stating which conceptual idea that is the most appropriate, several competing logics are therefore likely to be present at the same time and the parallel existence of several conceptual logics becomes unavoidable. However, our general impression is that there is a larger gathering around the proposed systems approach today, compared to 10-15 years ago.

Systems thinking and contemporary cybernetics are meant to be inclusive, which means the approach can embed theories on for example human cognition, social relations, and cultures. After all, managing crises is to a large extent managing sociotechnical systems. There are indications that such an approach can also lower the barriers between different academical discourses, which are no less sprawling than the ideas among professional crisis management actors.

5.2 THE VALUE OF THINKING DEVELOPMENT AND IMPLEMENTATION SIMULTANEOUSLY

The development of conceptual reasoning and the implementation of such ideas should be seen as interconnected processes. A checklist can be memorized as rote knowledge and tasks executed without much reflection but making sense of how a complex reality can be understood requires other intellectual efforts, often facilitated by reflections and discussions. Traditional implementation strategies, for example distributing texts and conducting lectures, run the risk of becoming rituals where people are happy that things are being done but few have challenged their own conceptual understanding and view of the world.

5.3 ADDING A 2ND CONCEPTUAL LANGUAGE CAN BE CHALLENGING BUT IS ALSO UNAVOIDABLE

While the reasoning above argues for the advantages of inclusive development processes in general, the following section pinpoints the challenge of achieving acceptance for a second conceptual language if you already adhere to one. Specifically, there are a multitude of internal conceptual discourses and jargons that may be perfectly functional in a non-collaborative context, but insufficient for capturing the conditions characterizing joint efforts. The Conceptual Foundation proposed by MSB is not meant as an alternative. It is complimentary. Nonetheless, it can be challenging to put the internal discourse temporarily to one side. This phenomenon is well captured by the idiom “if you are a hammer every problem will look like a nail”. Using the formulation “a second language”, or similar, may mitigate the knee-jerk reaction to oppose what not completely corresponds with the internal discourse.

5.4 HOW DO YOU DEVELOP AN ART?

Most people seem to agree that not everything can be explained using rational scientific arguments, and that complex problem solving hardly can be reduced to simple checklists. At the same time we face the challenge of managing the expectations of writing policy documents that are very concise and quick to adopt. An example of a line of reasoning that has been challenged is that command and collaboration are partly about interpreting and understanding the difference between the desired direction (intent – where do we want to go?) and the direction that actually is achieved in the field (where are we actually going?). Most likely because it has to do with judgment, experience and feeling, and cannot simply be

reduced to a mechanical workflow. Perhaps this is one of the reasons why command and managerial collaboration - and all other various conceptual amalgams dealing with managerial aspects of complex systems - to a certain degree should be seen as a form of art rather than science. Whilst the art metaphor may provoke some, we don't see this as an argument for avoiding this perspective. Rather, the fact that it may provoke may be beneficial when using it as a topic for discussing challenges associated with management.

6 IMPLEMENTING IDEAS IN A COMPLEX SYSTEM OF CRISIS MANAGEMENT RESOURCES

In an ideal situation, everyone who is expected to use a joint doctrine should also be involved in the development of it. Of course, this is practically impossible, not least because products that are already finished must be “sold in” to hundreds of organizations whilst also acknowledging their limited time and resources. A pragmatic approach to implementation of a conceptual reasoning is therefore to distinguish between different target groups on an individual level. For example:

- senior decisionmakers in organizations who work with crisis management on a daily basis,
- senior decisionmakers in organizations who have crisis management as a supplementary task,
- crisis preparedness officers, or crisis management lecturers and trainers.

A lecturer, or a crisis preparedness officer, may benefit from profound knowledge and understanding of the rationale behind various analytical choices in the Conceptual Foundation, while a senior decisionmaker in an organization who are not working with crises on a daily basis can cope with a basic reasoning. Using the idea of different target groups already in the development process has proven to be beneficial, partly because it seems to reduce the general resistance to theoretical reasoning by the argument that not everybody needs to know everything.

Another experience from working with the implementation of a Conceptual Foundation as a second language is that you are not alone with such an ambition. This can be seen as a confirmation of the need for such development efforts and also as an adaptive behavior in a complex system of various organizations: an adaptive behavior that may be functional on a local system level but challenging on a higher level where harmonization of local variations is part of building coherence and joint capacity.

This is most likely not a typical Swedish phenomenon. Rather, it can be seen all around the globe. In fact, there are several attempts to establish “crisis management standards”, for example within the UN [31], EU [32] and Nato [33]. There is also a crisis management ISO standard [34]. In addition, there are several national systems, such as the US National Incident Management System (NIMS) [35].

In connection with this problematization, it becomes relevant to ask the question why not just use any of the already existing conceptual foundations? There are several reasons for this:

The Conceptual Foundation, briefly described in section 4.2, is more than a list of definitions. It is a coherent language, with transparent arguments behind the analytical choices. Our interpretation of other policy documents on similar themes is that various concepts are rarely connected, rather represented in glossaries mixing different levels of abstractions. Based on our experience of previous attempts of frameworks/doctrines for joint operations, the lack of theoretical coherence hampers implementation, especially among groups as educators and experts.

Relating to the issue of levels of abstractions, we find it unusual to present various documents in a structure like the one described in Figure 1, demonstrating how the products rely on each other. Such a structure facilitates communication, but also requires a well-connected development process where ideas and language continuously need to be adjusted.

Thirdly, the benefits of engagement in development should not be underestimated. The will to implement something you have been engaged in – as developer, reference group, steering board or just observer from the side – appears to be considerable.

Worth noticing is that the Conceptual Foundation doesn't seem to go against common standards in any fundamental aspect, perhaps to some degree because it contains a slightly different content. Therefore, we see no problem with simultaneously working with implementing policy documents on crisis management from the EU or Nato. They add other important dimensions, necessary for Sweden to be a well-functioning actor in an international context. If any differences in conceptual reasoning will arise, we refer to the important crisis management skill of being multilingual, understanding various perspectives and being able to operate on different scenes simultaneously.

Compared to previous efforts to implement a framework

for joint operations, and implementing a joint conceptual foundation in particular, the ongoing attempt appears to reach further. More time is given to conceptual discussions among certain target groups and the Conceptual Foundation is regularly presented as an “analytical choice” that can be debated. The analytical humbleness, as explained in section 4.2.1, may have led to reduced thresholds and active engagement in necessary intellectual discussions on how to interpret management in a multi-organizational environment.

At the time of writing there are no academic attempts to measure the effects from the newly developed material. An observation, most likely biased due to our engagement in the process, is that the interest and willingness to adopt the suggested reasonings, both when engaging in joint efforts, but also as an internal way of thinking and reasoning, is large. Perhaps this is due to a wider and stronger commitment to crisis management and total defense among societal actors in general? Perhaps also because of experiences from recent crises where parallel conceptual approaches can explain friction and ineffective use of societal resources? In addition, probably as a result of the two observations above, there has been a lower threshold to reach strategic leaders, and their engagement in the implementation processes cannot be underestimated. Finally, repeating what is stated in various sections of this paper, a thorough and coherent reasoning explaining how various concepts are motivated and interrelated appears to have noticeable pedagogical advantages.

7 SUMMATIVE CONCLUSIONS

This paper has argued for a common ground in joint crisis operations, sometimes called complex endeavors. In Sweden, such a common ground is labeled as a “Conceptual Foundation”, providing an analytical language inspired by systems thinking and contemporary cybernetics. This is an inclusive approach, yet it provides precision in thoughts and hopefully also efficiency in activities when responding to various civil and military hazards. The Conceptual Foundation is by no means the only or the complete toolbox for the crisis manager. Rather, it provides linguistic and conceptual starting points for the intellectual parts of practical crisis management and provides a foundation for the development of a set of coherent practical tools.

Based on our experiences of a development of a joint Conceptual Foundation we conclude that the prerequisites for successful implementation are more favorable than previously, most likely due to the fact that

crisis management is higher on the agenda, the urge for fast capacity development highlighting the need for a joint language avoiding a “Babylonian confusion”, and promoting efficient joint action. This is not to say that the work has been effortless. A joint development ambition includes numerous intellectual negotiations, and the path to a final product is full of theoretical and philosophical rabbit holes where few objectively correct answers can be found.

In summary, we believe that both the delivery and the process of updating a conceptual foundation for joint operations in a Swedish context is a strategic step for further strengthening the entire society’s capacity to handle crises of tomorrow, no matter what they look like. The content in this paper can hopefully inspire further theoretical insights, but also serve as inspiration and lessons learned input to similar efforts in other countries.

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