

## English summary of study on emergent phenomena

This is a summary of Johan Ehnberg's master's thesis "Civilkrisshanteringens organiserings på fältet: Arbete utöver planer", presented on 2009-10-13 at Åbo Akademi University. The study was facilitated by the Swedish Civil Contingencies Agency (MSB) with help from Lund University. The case for the study was the European Union Monitoring Mission (EUMM) in Georgia. The study explores how work is organized in ways that are not planned through the concept of emergent phenomena in organizing.

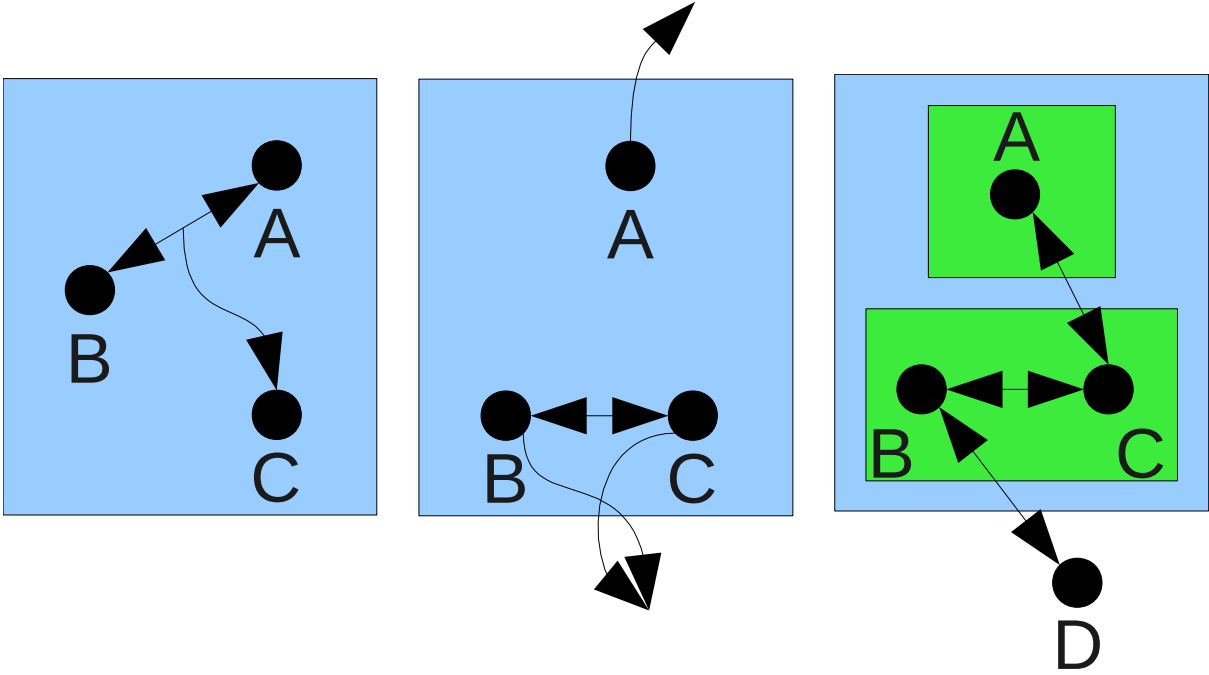
In order to understand how the organization is organized formally, two types of information were used. Firstly, documents pertaining to the mission were collected. These include planning documents, organigrams and communications such as emails. Secondly, as the mission was established according to a command-and-control (C2) model, some basic concepts of C2 are laid out in order to interpret the organization's planning. With an understanding of how the organization is formally organized through these two types of information, the study goes on to look at those phenomena in the organization on the field, which have not been parts of how the organization was planned. Information about these phenomena was mainly collected through interviews and observations during the field study.

Two separate analyses are used in order to identify different types of emergent phenomena. The first, a simple social network analysis, is used to identify work relations of participants in the study. This information is used to identify work relations that span organizational boundaries in ways that have not been planned. The social network is also useful for identifying potentially interesting future participants, i.e. as a convenient participant selection. The second analysis is based on the tool for analysis used in grounded theory. This allows the researcher to identify phenomena that are not visible in the social network analysis. Through this second analysis, information describing the organization performing on the field is codified and grouped, creating categories whose interrelations are explored. This is presented as two main categories with two and three groups respectively: circumstantial factors as internal (planning, guiding) and external (environmental, demanding) as well as the identified emergent phenomena as self-organization, improvisation and emergent groups. The relations of these main categories follows the philosophical concept of emergence: a process where new and complex patterns emerge out of several simpler interactions.

In the thesis, the significant result is a proposal for a typology of emergent phenomena in order to create a clear terminology and definitions for emergent phenomena. These definitions build on earlier research, aiming to establish their relations without overlapping or gaps. The typology is defined through three types of emergent phenomena (see figures below). Self-organization emerges within given organizational boundaries and includes no new agents nor actions. Self-organization typically addresses insufficient planning of actions or redundant work roles, as organization members among themselves find ways to specialize or to divide work loads. Improvisation is initiated from within organizational boundaries but includes actions that are not part of the formal organization. Improvisation typically addresses lack of tools or other missing preconditions for performing the required work. Emergent groups defines relations that span organizational boundaries, within (units, departments) or outside (between organizations) the formal organization, and thus includes new agents. Emergent groups typically arise from mutually beneficial cooperation such as information exchange or joint actions, or as a way to address a need for additional human resources.

Being a pragmatic study, one of the main points in the thesis is to develop possible applications of the results. In addition to the academic uses of a typology as well as a method specifically designed for studying international C2-operations in crisis management, the study

may have uses for crisis management practitioners. For example, the typology may be used as a tool for organization development by identifying emergent phenomena that are of use to the organization. A Chief of Staff could, for example, do a survey of the work relations in order to identify how information flow in the organization could be more streamlined. Similarly, an officer tasked with planning operations could benefit from learning new and more efficient ways to perform the work, propagating that solution throughout the organization. In this sense, the application is a way to do capacity building within and outside the organization, tapping the skills of experts in the field and bringing them into planning in an otherwise prominently top-down organization.



*Figure 1: Self-organization emerges within organizational boundaries.*

*Figure 2: Improvisation defines new ways of organizing work.*

*Figure 3: Emergent groups appear within and outside the formal organization.*