Apprenticeship Learning in Preparation for Meeting the Unforeseen

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Abstract: The chapter analyzes teaching where the goal is to enable students at the Armed Forces Staff College to master unforeseen events. The students are all participants in a program for joint operations in which different military branches are placed together to solve complex tasks. How can the supervisor contribute to increased *samhandling* when facing the unforeseen? The goal is for students to be able to cope with the roles that exist in a normal NATO headquarters and to learn how to use NATO's operational planning strategy. The group supervisor becomes a form of master who greatly influences the approach of students to the training community. From a sample of one hundred students, five groups consisting of four to five students of both sexes, with varied defense-force affiliations, backgrounds and experience were selected to be interviewed. A total of 23 informants participated in the interviews. In addition, observations were carried out. Apprenticeship Learning as a method is appropriate to prepare the students better for *samhandling* in anticipation of the unforeseen. The way the supervisor manages his or her role has a great deal of impact on *samhandling* and learning outcomes. The supervisor's insight and expertise in what is needed to make groups work together is decisive. Strengthening and developing *samhandling* in exercises is a suitable educational method for military forces in meeting unforeseen events, provided that it is done properly.

Keywords: *Samhandling*, interaction, apprenticeship learning, supervising, training, education, organizational learning, unforeseen.

Introduction

In this chapter, we analyze teaching where the goal is to enable students at the Armed Forces Staff College to master unforeseen events. The students are all officers who come from the three branches of the Armed Forces – Army, Navy and Air Force. The purpose of the course is to increase understanding of joint operations (Andersen, 2016; FHS, 2015). Since conflicts and wars rarely follow a familiar pattern, unpredictable factors are incorporated into the teaching (Heier, 2015). Kvernbekk, Torgersen & Moe (2015) define the unforeseen (UN) as something that appears unexpectedly and with low probability for those who experience having to deal with it. Torgersen & Steiro (2009) define *samhandling* ["interaction"] as "*… an open and equal communication and development process between parties whose competence complements one another […] working towards a common goal, where the relationship between parties is always based on trust, involvement, rationality and industry knowledge*" (Torgersen & Steiro, 2009:130). The unforeseen and *samhandling* are linked to the Bow-Tie Model, which shows the phases before, during and after the unforeseen event occurs (Kvernbekk et al., 2015). The tied loop shows the preparation phase, UN-0 (Unforeseen state 0 in the course of the event) and the impact phase (see Chapter 1). Group leaders should stimulate all three phases in order to increase *samhandling*. *Samhandling* in the different phases might change, and the model shows that the participant changes his or her role from legitimate peripheral participant to full participant in social processes. Based on this, we will investigate the following issue: How can the supervisor contribute to increased *samhandling* when facing the unforeseen? "Apprenticeship Learning," developed by Lave & Wenger (1991), is used as a framework in this chapter.

Apprenticeship

Apprenticeship is rooted in sociocultural learning theory, which emphasizes that knowledge is constructed through social interaction (*samhandling*) within a context, and not primarily through individual processes (Lave & Wenger, 1991; Nielsen & Kvale, 1999; Maguire, 1999; Dysthe, 2001).

It is common to perceive apprenticeship as a learning process between an expert and a novice or student, where the learning occurs both by the expert showing and telling the student how to do something and then by the student executing the task or assignment while the expert observes and guides the action. Guidance is thus a central form of communication. The student gains a lot of knowledge by observing and performing actions himself. In this way, knowledge is transmitted that cannot be conveyed directly in other ways (Polyani, 1967). Apprenticeship can be perceived as a metaphor of the learning process, in which a student learns by observing and being supervised by a master (Wackerhausen, 1999). By participating in the activity, the novice learns the cognitive structures by observing how the master solves the tasks. This form of learning is also relevant in military pedagogical (educational) contexts, in which officers learn to handle situations that require both quick decisions, interaction and concrete action in unpredictable and risky situations, concurrently while the situation is ongoing.

The more experienced officers guide less experienced officers and soldiers through given military cases and scenarios that are often based on experiences from actual events. Within this framework, learning develops through social processes, thus making the students' active participation in social interaction a prerequisite for learning. Lave & Wenger's (1991) theory of Apprenticeship Learning emphasizes that through legitimate, peripheral participation in the community's productive activities, the apprentice gradually acquires the essential skills, knowledge and values of the craft, by moving from peripheral participation to becoming a full member of group and class. From this perspective, learning consists in acquiring a structure in which students gain increasing access to the experts' domain; in this context, the knowledge of the officers.

Competence in mastering such action-oriented and situational events is developed not only by reviewing fixed action patterns in advance, or through debriefing. Often, creative and unfamiliar solutions are required when *samhandling* involves many participants. This is where Apprenticeship Learning has its advantage as an educational tool. Apprenticeship Learning captures the components in a concrete way, which can be

utilized in the learning situation. Another feature is that the learning content is complex and diverse, often consisting of many simultaneous and non-linear events that do not seem to belong together, making it possible to associate these in a cause and effect relationship. Here, there is a mix of experience, concrete prior knowledge of proven patterns of action and procedures, and very rapid decisions based on the multitude of information. In such situations, it is not possible to stop up and review the individual events in systematic order to "transfer learning to the pupil". However, the most relevant approaches to observation and guidance in such situations, where an overall picture and diversity of knowledge structures are part of the learning process. The central part of this learning context is how the *samhandling* is carried out between the master and the students.

Lave & Wenger (1991) strongly emphasize that learning can take place despite the fact that the participants do not share a common understanding. The apprentice's ability to understand the master's work is not based on the same perception of what they are going to work with. It also depends on participation from both sides in an equal manner. Similarly, the master's effectiveness as a teacher does not depend on his ability to convey his concepts and perceptions to the apprentice. It is also a result of the master's ability to control participation in such a way that the apprentice can develop. Thus, it is their shared participation, not symbols and structures that are the starting point of the apprentice. Central characteristics of Apprenticeship Learning are (modified after Lave & Wenger, 1991; Pratt, 1998; Nielsen & Kvale, 1999):

- Context-dependent, situated learning
- Active participants
- Collective-oriented social learning communities
- Training in practice
- Dialogue-oriented coach/mentor
- Process in a social community
- Contemplative knowledge, different abilities and knowledge each have their own value
- Students are subordinate to the master

Description of the educational context at the Norwegian Armed Forces Staff College [*Forsvarets Stabsskole*]

Education takes place in the form of group guidance under the direction of more-experienced officers. The goal is for students to be able to cope with the roles that exist in a normal NATO headquarters and to learn how to use NATO's operational planning strategy. The students come from different branches of the defense forces and contribute with their individual competence, so that together they can manage to plan a joint operation. The *samhandling* between participants also helps to eliminate the division between defense branches.

The group supervisor becomes a form of a master who greatly influences the approach of students to the practice community. Students go from being peripheral participants to becoming full members of the group or class. Through practice-based learning in authentic situations, the students learn and eventually become masters. Instead of asking which cognitive processes and conceptual structures are involved, we look closer at the task of what the master/officer must help to promote in the social environment for learning to take place. Vygotsky (1978; 1986) shares the perception of learning as a social phenomenon, which emphasizes that learning primarily occurs through participating in a practice community. Vygotsky's (ibid) view of learning and development is expressed from a socio-cultural perspective by the development of thought, from the inter-psychological (social, interpersonal) to the intra-psychological plan (individual plan).

Method

Our aim is to gain an understanding of the students' experience of the supervision they received; therefore, we conducted both observation and qualitative interviews. The first author of this chapter developed an interview guide, conducted the interviews and was responsible for analysis of the material.

A semi-structured interview guide was developed in advance, in accordance with guidelines issued by Kvale (1997) & Patton (2002). The

interview guide was developed to create a structure, so that the common theme was covered. The interview guide consisted of brief questions related to:

- The students' relationship with the group supervisor
- The role the supervisor plays in the students' learning development
- Whether the group is consciously aware of complementary skills and how participants experienced that the different skills/backgrounds of the group appeared in group guidance
- The group supervisor's influence on *samhandling* and the relationships within the group
- The group supervisor's influence on the work process in the group
- Whether this form of group guidance is of practical and professional relevance for the student group
- How the relationship between group and process is emphasized in the counselling

In order to attain different perspectives, a semi-structured interview guide was used, which covered the same topics but remained, at the same time, open and flexible so that topics which emerged during exciting discussions and exchanges of opinion could also be covered. It was necessary to search for diversity, variety and breadth when interviewing the informants, which Kvale (1997) points to as important. The participants were asked to describe what they had learned and how they considered the role and importance of the supervisor in the *samhandling*. In the follow-up, the interviewer often asked the participants to concretize with examples and elaborate on their statements. From a sample of one hundred students, five groups consisting of four to five students of both sexes, with varied defense force affiliations, background and experience, were selected to be interviewed. A total of 23 informants participated in the interviews.

The informants were informed in advance regarding the purpose of the study, which was to examine how Apprenticeship Learning is used as an educational method to prepare for meeting the unforeseen. The interviews were conducted in April/May 2016. Participants was informed before the interview and all gave their consent, also allowing the use of

sound recording. The interviews were conducted verbally, and later, fully transcribed. This made the analysis work conducted afterwards more tangible, and made it easier to interpret the material better. In addition, an observation form was used to make observations in all the groups in advance. This was done for the same reason as the interview guide. Observation is useful, both in providing input for the interviews, linking experiences in common, and helping to analyze the material. In this way, triangulation of the material is enabled. In particular, emphasis was placed on observing the following:

- The activities of the students
- Shared knowledge among the students as well as between the students and the supervisors
- How the supervisor managed his/hers role

The observations correspond to 10 hours of material. Each interview lasted one and a half hours. In total, this study covers 17 hours of collected material.

Analysis

Thematic analysis was adopted when interpreting the interview material. This is a suitable method for identifying, analyzing and reporting patterns within the data analysis (Braun & Clarke, 2006). In contrast to other types of qualitative analysis, (such as Grounded Theory, IPA or discourse analysis), thematic analysis is not bound to a theoretical or epistemological framework (Braun & Clarke, 2006). The analysis can therefore be classified as a deductive, thematic analysis or a "top down" process, according to Braun & Clarke (2006). A theme was defined as "patterned response or meaning within the data set" (Braun & Clarke, 2006:82). During the process of theme development, themes were continuously revised, implying, for example, that some themes would be subdivided and others would be combined for the purpose of fitting the data. This step of the analysis therefore involved a certain degree of interpretation. The interviews showed that all of the students appreciated the

basic aspects of participating in the learning community in general, and mastery in particular. The fact that learning is added to an exercise that is highly relevant and involves active interaction in a professional and social community, seems to be success criteria for the teaching plan. This is common to all of the groups and is demonstrated in Table 6.1.

Table 6.1 Categorizing the findings by group and seen in relation to Lave & Wenger's (1991) taxonomy.

Lave and Wenger's (1991) taxonomy	Small degree of *samhandling*	Increasing degree of *samhandling*	Approximate exemplary *samhandling*
Group	A	C+D	B+E
Context-dependent, situated learning	Yes	Yes	Yes
Active participants	A few active, the majority passive	A few active, the majority passive	Everyone actively builds on their own background and experience
Collective-oriented, social learning communities	Single performance is emphasized, focus on product	Single performance is emphasized, focus on product	Establishment of a sharing culture, everyone contributing their complementary skills
Training in practice	Yes	Yes	Yes
Dialogue-oriented coach/mentor	Monological approach, the supervisor has the answers.	Monological approach, the supervisor has the answers.	The supervisor highlights the students' answers, consciously repressing his/ hers own answers
Process in a social community	Emphasizing the result	Emphasizing the process	Emphasizing the process in the preparation phase and the result in the consequence phase
Students are subordinate to the master	The supervisor has the blueprint/has the right answer/ is the one with the right answer	No one is right	There is no blueprint; open questions, different qualities of different answers are encouraged

Product or process – or both?

The analysis reveals that some supervisors mainly emphasize the product, while others emphasize how the group reached the result, i.e. the process, to a greater extent. The product indicates something about the specific

product and solution the group had come to. Furthermore, the product was influenced by the supervisors, who made sure that the groups followed certain structured patterns of action and worked towards a goal that was embodied in doctrines and drills. The process denoted how the group worked together to solve the task:

> "It's not just a simple matter of coming up with a move. You must be prepared to explain the analysis behind it and why you think as you do. Then you also stimulate learning in the others. Those who always have a ready response are restrained so that others can share the limelight." (Student, Group E).

In one interview, it was reported that:

> "It is not education we are dealing with. We are doing what we should be doing. We are experiencing it. We are forced to be more active. This way of learning leads us a step further." (Student, Group B).

Another group expressed that:

> "It is very good that the supervisors walk around in the small groups and participate, that is very good. They contribute in the discussion, but they do not come with the blueprint and specific opinions. They come in and give some hints, and often it's the one that helps to solve the process." (Student, Group E).

The supervisor's alternation between process and product was important for the *samhandling* process itself, especially in relation to the development of complementary competence and involvement awareness among the participants. In the student groups where the supervisors were able to create confidence in the preparation phase, the students stated that it contributed to a culture in which the participants trusted each other and gave of themselves (Groups B and E). The individual saw himself and the others as important resources.

> "It's a very good group that I learn a lot from; people are good at sharing the knowledge they have, while the supervisors are open to answering stupid questions and without being nailed to the wall". (Student, Group E).

"Scaffolding" provides a good illustration of *samhandling* between master and apprentice. The master seeks to give the learner an assistant,

which aims to expand the apprentice's ability to solve different tasks. This gives the learner the opportunity to solve tasks that he would not otherwise have had. The proximal (also called the nearest) development zone (Vygotsky, 1978; 1986), is said to be the difference between the cognitive challenges of a child managing on their own and the tasks the child can solve under the influence of an adult or in collaboration with a more knowledgeable adult. The same would be also between adults, i.e. a master and apprentice. From a *samhandling* perspective, the relationship between the student and the teacher assumes, as a matter of course, that the student actively participates in the educational process. Some of the students' statements illustrate the nearest development zone/ scaffolding:

> *"It is very good that the supervisors are available. I noticed this the first week. We were going by a map and we were also fumbled about for a long time to find out what to do. It was like getting a map distributed, but a map where there were no entries in the map. Then the supervisor was there and gave us three key words and solved a lot of things for us, putting us on the track so we realized what to do. Helped us start the process."* (Student, Group B).

Vygotsky (1978; 1986) believed that teaching and learning had to come first and that psychological development would follow as a natural consequence. However, in order for this to happen, the teacher must be able to facilitate development-promoting learning processes by using mediating tools such as language, signs and symbols, graphic illustrations, theories or models that can constitute a "scaffold" for the students, in their efforts to exceed the nearest development zone. In addition, the task the students are facing should be oriented towards stimulating collective development processes, rather than testing their individual learning outcomes.

Furthermore, based on analysis of the material, we find that the mentors who focused a lot on the product in the preparation phase did not take the unforeseen sufficiently into account. This may indicate that the more insecure the supervisors were in their own role, the better they were at emphasizing the outcome. As an example, a student claims, "It's more that they resolve the problem rather than providing us with the piece of

guidance that will help us to find the answers ourselves." (Student, Group D). There are examples where the students found that the counseling was counterproductive. This happened when the supervisors failed to find a good balance between process and outcome:

> *"So, NATO has no idea how this should be done, and when the supervisor intervenes and presents a solution where there is no solution at all, then it disturbs the process. I think the supervisors were unsure how to do that. It became a little staccato when they appeared."* (Student, Group D).

Utilization of complementary skills

An important task for the supervisors was to utilize and channel the participants' overall competence as well as they could towards common goals. Complementarys skills and the recognition of complementary skills are very important for *samhandling* (Torgersen & Steiro, 2018, Chapter 2; Steiro & Torgersen, 2018, Chapter 14). Sometimes the participants lost motivation. The task was to capture the students' attention and direct them towards the tasks without appearing authoritarian:

> *"We strive and sometimes it's like getting a map out without any entries in the map. Then the supervisors provides us with 3–4 keywords that solve a lot for us. Puts us on track so we understand what to do."* (Student, Group B).

We see here a form of more indirect education which does not instruct but rather stimulates the use of one's own competence, which is brought out by gaining input or new perspectives (Torgersen, Steiro & Saeverot, 2015; Saeverot, 2013; Torgersen & Saeverot, 2012). The quotation above further illustrates that the supervisor had to provide the progression here. When necessary, the supervisor entered and noticed the need for everyone to participate. A "clear process focus" meant that the supervisor invited the participants to contribute and followed them up in the process.

> *"They have given some good targeted feedback, but at the same time not too much. I don't think I would have learned much more if I had received more advice and tips. It might have become a crutch."* (Student, Group B).

An important task for the supervisors was to split the group into smaller subdivisions and place people in roles where they had their strengths. This was important in order to highlight complementary skills:

"Our supervisors were clear that we had to use our expertise because the complexity is so great. As a military man, I don't know how the Navy handles things. We must have naval competence. This was expressed clearly when we distributed roles." (Student, Group B).

Most students felt that dividing sections into smaller groups was positive. Using this maneuver, the supervisors managed to facilitate a good dialogue and contribute to the individual's knowledge development. A student explains:

"You must be prepared to explain the analysis behind it and why you think as you do…Then two things happen – you challenge the person who says it and everyone becomes involved in the thinking behind it. It also helps others to participate and leads to good discussions." (Student, Group E).

The students felt that they became more responsive and reflective in the smaller groups. It was easier to contribute with their own perspectives:

"I pull back in the big group because most people have already 'steamed on ahead' in the process. I find it hard to be a contributor. But when they divide us into smaller groups, it becomes a completely different activity for me and I am able to take responsibility for contributing." (Student, Group E).

Tension between master and student: The asymmetric master-apprentice relationship

Supervisors alternated between authoritative and egalitarian styles of supervision, which was important for the *samhandling* process, especially in relation to the development of trust between all participants. Supervisors who used their professional authority, while acknowledging and elevating the students' competence, succeeded in gaining trust:

"I'm unused to the degree of firmness. The supervisors are clear about how things should be done here. They help to steer us towards the center, not the periphery, as a safe way of conducting the operation." (Student, Group B).

Supervisors who demonstrated their professional authority early in the relationship, while at the same time ensuring equality in human relations, helped to create trust between supervisor and student, but also between the students themselves. An example of such a relationship is the group where supervisors and students built up a master-apprentice relationship:

"They don't just throw the ball back and tell you what you should be thinking. It's a good way to give guidance. They have a lot of experience, professional competence and social competence as supervisors. There is a foundation at the base." (Student, Group B).

Even though the relationship was not equal, the parties had confidence in each other. There is no need for total equality in the roles between student and supervisor. The students should feel safe to reflect and contribute to co-operation. The balance between equality and authority is crucial:

"Being able to establish the group's sense of security has been crucial to learning." (Student, Group E).

A criticism of the Apprenticeship Learning paradigm is that the student is supposed to subjecting the master, learn his values and norms in the work (Illeris, 2000; Skagen, 2004). The authors argue that this is not compatible with modern education, where critical reflection and democratic participation are central. The interviews demonstrate that the students perceive the practice differently; the supervisor who take on an unambiguously authoritative role create a distance between themselves and the students at the expense of learning outcomes. On the other hand, in group supervision it is important that the supervisor takes on a certain amount of authority in the role of master. If there is too much equality throughout the process, it appears to lead to a search for direction and clarity from the supervisor, according to the interviews.

In contrast, three of the student groups showed that professional authority that could be used positively, in some cases, was used as a type of power (Groups A, C and D). In one group, the students reported that the supervisor exercised some form of power and demonstrated authority in the classroom. In this group, the supervisor had a clear need to demonstrate his own professionalism. The students experienced little sense of coping on their own; many of them failed to follow the processes in the group and they lacked faith in their own contribution. For the students, the supervisor's dominance was an obstacle to establishing self-confidence and trust.

> *"The supervisors have a need to show that they are the sharpest on land, sharpest at sea, sharpest in the air. There are students who have several thousand flying hours in an F-16, who have led sharp operations in Libya, and have been deeply involved in Afghanistan. And then the staff of the school sit there and try to tell them what the world looks like."* (Student, Group C).

Here, it is apparent that professional authority is being abused, or at least used in a way that does not create trust and security in the group. Torgersen and Steiro (2009) emphasize the key importance of trust in creating dependable *samhandling*. It appears that the instructor assumes a mentor perspective rather than a coaching perspective in this context (Steiro & Firing, 2009).

Apprenticeship learning and facing the unforeseen

If we return to the Bow-Tie Model, as presented by Torgersen (2018), and the first chapter of this book, we can present the ideal supervisor role in the preparation phase as follows: A process-oriented supervisor with authority. In the preparation phase, it is important to work with the cooperation indicators of trust, security and openness (Torgersen & Steiro, 2009; Steiro & Torgersen, 2015). This phase is characterized by participants becoming familiar with themselves and the others in the group and building confidence in relationships. The trust created during the preparation phase makes the participants more involved and therefore better at contributing their competence:

"Yes, because it is the craft we are learning, you know. You don't learn a craft without holding a hammer and that's what we're doing." (Student, Group B).

In the preparation phase, the supervisor uses his or her professional authority to create a shared commitment and understanding of the situation. By virtue of experience and competence, the supervisor can pave the way in preparation for meeting the unforeseen. It is important for the supervisor to initially build a culture in the group that is based on shared understanding. The students need supervisors who are able to display leadership, define roles and be clear about expectations. If this is not possible, the parameters of what you are preparing for will soon become too wide open. During this phase, the supervisor should take on the role of expert and indicate the direction of the work. The supervisor must facilitate the creation of a common frame of reference – a temporary, "shared room of understanding" (Dysthe, 2001).

Supervision by introducing a topic, cue or question that provides something that can stimulate the group's alertness and curiosity is favorable (Steiro & Firing, 2009). By counteracting instrumental learning, supervisors can also motivate students to engage in informal learning situations. Thus, the students dare to engage in broad and ambiguous issues. A formal and structured perspective, where the focus is on a specific goal, can inhibit learning ability and the prerequisites for meeting complex situations. The supervisor must establish a foundation of trust in the preparation phase, so that students dare to steer away from formal learning processes and towards the unforeseen (Torgersen, Steiro & Saeverot, 2015).

Authority and process focus are a fruitful combination in the preparation phase. It is not, however, that a clear process focus excludes any kind of authority. On the contrary, students report that departing from professional authority in the preparation phase can be a threat to good teaching and guidance. Primarily, the task is to organize a process and dare to challenge the role of the professional expert. The supervisor's emphasis on academic authority provides the basis for each student to take the opportunity to contribute his own expertise and to recognize others' expertise. The supervisor's most important task in the preparation phase is to build trust. As we have seen, the supervisor should be a clear role model in building a culture based on trust, security and openness.

When the supervisor creates a supportive learning culture in the preparation phase, it leads to the students becoming bearers of the same culture. We see that the supervisor provides the basis for what is described as "legitimate peripheral participation".

In UN-o, the supervisor must dare to let go of control to a certain extent. The supervisor must trust that the control and steps he has taken to facilitate the process during the preparation phase have strengthened the students' ability to handle the unforeseen. The supervisor should emphasize an equal and process-oriented tutor style that allows students to act according to the circumstances of the situation. For a supervisor, it may be challenging to lose control. In asymmetric relationships, there is usually a tendency for communication to be centered on the supervisors, because they usually know more or master more skills than the others in relation to a particular subject, or they are better at expressing themselves. By deliberately staying outside of the process, the supervisor encourages a symmetrical form of *samhandling* between the participants, giving each student's voice a greater authority. When the supervisor maintains this paradoxical way of exercising the supervisor role, it opens up for guidance with greater learning outcomes.

In the impact phase, we see how some mentors successfully combine equality with a focus on results. It is an advantage if the supervisor allows students to focus on the result, but at the same time dares to move away from the role of an expert who knows the correct answer. The supervisor should visualize the students' competence and not feel threatened by it. The supervisor does not possess a set answer; each student must use his/her competence in the UN-o phase. It is less relevant to point out who provides the solution as the answers are the result of a process. In the impact phase, it is important that the control dimension is reduced. Through the established relationships, the supervisor can be a catalyst, in order to raise the students' awareness regarding the complementary processes that have led them to the product. The important thing is not the result in itself, but how the students have worked and what processes they have used.

Using an egalitarian guidance style with open-ended questions, the supervisor can provide a structure and clarify how the group reaches

its outcome. In order to solve the unforeseen in UN-0, the students are dependent on complementary skills. Different ways of seeing the matter can make important contributions in solving the task. The supervisor may, to advantage, restrain his/her professional authority and expert role. The supervisors who help strengthen the various contributions are those who take a step back, allowing the students to offer their reflections to a greater extent. The participants not only contribute different skills, but also develop and learn from each other along the way, through what is referred to as concurrent learning (Steiro & Torgersen, 2015; 2013). When the supervisor helps to create such an awareness, it is not only important for the individual's understanding of roles, but also contributes to a broad and complex learning process. Thus, they learn from each other during the *samhandling* process. Production and learning are part of the same process and show that learning takes place in a practice community. Such complementary contributions are essential for a joint operation to function effectively (Torgersen & Steiro, 2009).

In the consequence phase, the supervisor should represent a counterweight to pure instruction, where logical conclusions about results control the conversation. Steiro & Torgersen (2015) argue that guidance should facilitate open and exploratory teaching where guidance and coaching constitute important components. The prerequisite is that the activities not only consist of information that stimulates reason and logic, but also open up for emotions and creativity. The supervisor should not maintain a tight structure with a given focus on a predetermined product. The supervisors should investigate, challenge and test the group's knowledge and understanding, asking follow-up questions where they assess the answers together with the group. The supervisor occupies a coaching role, which is appreciated by the students, as seen in this study.

Conclusion

In this chapter, we have shown that if the supervisors can balance the role of egalitarian authority and process and outcome in the various phases of the Bow-Tie Model, Apprenticeship Learning as a method is appropriate to make the students better prepared for *samhandling* in anticipation

of the unforeseen. The way the supervisor manages his role has a great deal of impact on *samhandling* and learning outcomes. The supervisor's insight and expertise in what is needed to make groups work together is decisive. Strengthening and developing *samhandling* in exercises is a suitable education method for military forces in meeting unforeseen events, provided that it is done properly, as this study has pointed out. The Armed Forces have a long history of experience in training and exercises, but there is still reason to question whether the current teaching methods adequately address the unforeseen. Studying how learning takes place in practice, what is learned and what tools provide the best learning outcomes, is very important. Training under close supervision can probably serve as a model for other agencies who practice unforeseen events. Guided student groups within the Apprenticeship Learning tradition is an alternative to traditional education, one that provides insights and valuable learning experiences.

References

Andersen, M. (2016). "Hva er fellesoperasjoner?" [What are joint operations?] In: Andersen, M. & Ødegaard, G. (Eds.), *Militære fellesoperasjoner – en innføring* [Military Joint Operations – an Introduction]. Oslo: Abstrakt Forlag, p. 19–28.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3* (2), p.77–101. DOI:10.1191/1478088706qp063oa.

Dysthe, O. (2001). *Dialog, samspel og læring*. [Dialogue, Interplay and Learning] Oslo: Abstrakt Forlag.

FHS (Forsvarets Høgskole). (2015). *Stabs og masterstudiet. Emnehefte, Militære fellesoperasjoner (2015–2016)* [Staff and Master's Degree Studies 2015–2016. Subject Leaflet. Military Joint Operations]

Heier, T. (2015). Læring i risikosamfunnet. [Learning in the Risk Society] In: Torgersen, G. E. (Eds.). (2015). *Pedagogikk for det uforutsette*. [Pedagogy for the Unforeseen] Bergen: Fagbokforlaget.

Illeris, K. (2000). *Læring — aktuell læringsteori i spenningsfeltet mellom Piaget, Freud og Marx* [Learning – Current learning theory in the tension between Piaget, Freud and Marx] Oslo: Gyldendal Akademisk.

Kvale, S. (1997). *Intervju. En introduksjon til det kvalitative forskningsintervju*. [Interview. An Introduction to the Qualitative Research Interview]. Copenhagen: Hans Reitzel.

Kvernbekk, T., Torgersen, G. E. & Moe, I. B. (2015). "Om begrepet det uforutsette". [On the Term the Unforeseen]. In: Torgersen, G. E. (Eds.) (2015). *Pedagogikk for det uforutsette* [Pedagogy for the Unforeseen]. Bergen: Fagbokforlaget.

Lave, J., & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation.* Cambridge, Massachusetts: Cambridge University Press.

Maguire, M. (1999). Modern Apprenticeships: Just in Time, or Far Too Late. In: Ainsley, P. & Rainbird, H. (Eds.). (1999). *Apprenticeship: Toward a New Paradigm of Learning.* London; New York: Routledge.

Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods.* St. Paul: Sage Publications.

Polyani, M. (1967). *The Tacit Dimension.* London: Routledge & Kegan Paul.

Pratt, D. D. (1998). *Five Perspectives on Teaching in Adult and Higher Education.* Malabar, Florida: Krieger Publishing Company.

Skagen, K. (2004). *I veiledningens landskap [In the Landscape of Supervision].* Kristiansand: Høgskoleforlaget.

Torgersen, G. E. & Steiro, T. J. (2018). Defining the Term *Samhandling*. In: Torgersen, G. E. (Ed.), *Interaction: 'Samhandling' Under Risk. A Step Ahead of the Unforeseen.* Oslo: Cappelen Damm Akademisk. DOI: https://doi.org/10.23865/ noasp.36.ch2

Steiro, T. J. & Torgersen, G. E. (2018). *Samhandling* Under Risk: Applying Concurrent Learning to Prepare and Meet the Unforeseen. In: Torgersen, G. E. (2018). *Interaction: 'Samhandling' Under Risk. A Step Ahead of the Unforeseen.* Oslo: Cappelen Damm Akademisk. DOI: https://doi.org/10.23865/noasp.36.ch14

Steiro, T. J. & Torgersen, G. E. (2015). *Samhandling* og underveislæring i møte med det uforutsette [*Samhandling* and Concurrent Learning in Meeting the Unforeseen]. In: Torgersen, G. E. (Eds.), *Pedagogikk for det uforutsette* [Pedagogy for the Unforeseen]. Bergen: Fagbokforlaget Vigmostad & Bjørke AS.

Steiro, T. J. & Torgersen, G. E. (2013). The Terms of Interaction and Concurrent Learning in the Definition of Integrated Operations. In: Rosendahl, T. & Hepsø, V. (Eds.), *Integrated Operations in the Oil and Gas Industry: Sustainability and Capability Development.* Hershey: IGI Global.

Steiro, T. J. & Firing, K. (2009). Coaching and Mentoring in Military Training: An Educational Perspective. In: Karlsdottir, R. & Kvalsund, R. (2009). *Mentoring og Coaching i et læringsperspektiv* [Mentoring and Coaching in a Learning Perspective]. Trondheim: Tapir Akademisk Forlag.

Saeverot, H. (2013). *Indirect Pedagogy: Some Lessons in Existential Education.* Boston; Rotterdam: Sense Publishers.

Torgersen, G. E., Steiro, T. J., & Saeverot, H. (2015). Den fjerde vei – indirekte danning mot det uforutsette [The Fourth Way – Indirect Formation Towards the Unforeseen]. In: Torgersen, G. E. (Eds.) (2015), *Pedagogikk for det uforutsette* [Pedagogy for the Unforeseen]. Bergen: Fagbokforlaget Vigmostad & Bjørke AS.

Torgersen, G. E. & Saeverot, H. (2012). Danningens nye ansikt i risikosamfunnet – digital vekking mot virtuell terrorisme [The New Face of Formation in the Risk Society – Digital Awakening Towards Virtual Terrorism]. *Norsk Filosofisk Tidsskrift, 47*(3), p. 170–179.

Torgersen, G. E. & Steiro, T. J. (2009). *Ledelse, samhandling og opplæring i fleksible organisasjoner* [*Leadership, Samhandling and Education in Flexible Organizations*]. Stjørdal: Læringsforlaget.

Vygotsky, L. (1986). *Thought and Language.* Cambridge Massachusetts: MIT Press.

Vygotsky, L. (1978). *Mind in Society – The Development of Higher Psychological Processes.* Cambridge Massachusetts: MIT Press.

Wackerhausen, S. (1999). Det skolastiske paradigmet og mesterlære [The Scholastic Paradigm and Apprenticeship Learning]. In: Nielsen, K. & Kvale, S. (Eds.). (1999). *Mesterlære. Læring som sosial praksis* [Apprenticeship Learning as Social Practice]. Oslo: Ad Notam Gyldendal.

CHAPTER 7

Leading and Managing Interaction Under Risk in the Police: What May Be Some of the Underlying Conditions for Learning from Experience?

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Abstract: Leading interaction under risk is one of the aspects of being a leader in the police. After the 22nd of July 2011 Norwegian terror attacks it has been pointed out that the main explanatory factors as to why interaction under risk turned out as it did not necessarily was due to the lack of resources, previous evaluations or government plans but rather the lack of living up to these. In organisation theory, -psychology and management literature, it is customary to distinguish between expressed and actual ways to manage and lead, as well as between the structural-instrumental and the institutional perspective. These strands of research address how the difference between general and overarching political aims and the execution of the same aims in practice neither may be neither uncommon nor unexpected. However, is it possible to expect more agreement between aims and actual behaviour? If so, what may some of the underlying conditions for leading learning from experience be? This chapter discusses what some of the underlying conditions for leading and managing learning from experience in the case of interaction under risk in the police may be. Specifically, conditions of learning located *between* the expressed and executed, that is, *between* the institutional and cultural.

Keywords: *Samhandling*, interaction, police, organizational learning, experienced based learning, leadership, unforeseen.

Introduction

In the Official Norwegian Report that followed the acts of terrorism in 2011, one of the main explanations proposed was that "resources were not able to find each other." (NOU 2012:14:134, chapter author's translation) One example given was when police personnel were unable to attain resources (i.e. boats) that were available at the scene, and coordinate themselves with the situation at hand. Proposed explanations were the lack of appropriate tools (e.g. joint communication platforms), and the quality of the police work performed. While cross-national exercises have been held in Norway (with Swedish colleagues), including joint communication platforms, there seems to have been less work done on the performance of cooperation under risk, and especially cultural explanations of this (Fimreite, Langlo, Lægreid, & Rykkja, 2013; Johannessen, 2015). Cultural traits and the characteristics of the organization or institution have been shown to play a part in the quality of coordination in crisis management (Christensen, Danielsen, Lægreid, & Rykkja, 2016). However, there is still no single optimal "solution or coordination formula that can harmonize competing interests, overcome uncertainty and ambiguous government structures, and make policy choices that everyone will accept." (Christensen, Danielsen et al., 2016:330) In other words, there is no standard system that is best for dealing with emergencies in general (Christensen, Lægreid, & Rykkja, 2016b).

At the societal level, the most serious situations are, fortunately, a rare occurrence. The importance of being able to lead and manage these events *when* they occur is, however, enormous. A lack thereof can lead to declining confidence in the principles of democratic governance and government (Lægreid & Rykkja, 2014). The problems of governmental planning have been described as "ill-defined," as they "are never solved" and are at best "only re-solved – over and over again." (Rittel & Webber, 1973:160). Furthermore, securing public safety has been described as a "wicked problem", as it intersects sectors, institutions and organizations (Christensen, Lægreid, & Rykkja, 2016a). A specific challenge is that this type of work may "fall between different jurisdictions and organizations," which may again result in a situation where the direct treatment of safety issues is

perceived as the "responsibility of none." This may cause the unwanted consequence that necessary security measures are not implemented (Christensen et al., 2016:34). In addition, solving difficult problems by applying the formula of searching for information in order to understand them and then re-solve them, "does not work." (Rittel & Webber, 1973:162). A potential way to go about this is to approach a given task, "reducing street crime" for instance, using "realistic judgement, the capability to appraise 'exotic' ideas" along with "trust and credibility" between the persons involved, and a willingness to try one possible approach, "OK, let's try that." (Rittel & Webber, 1973:164). However, even though these may be well-known moves within academia, Ritter and Webber emphasize that they may be less welcomed among public authorities and head managers in the public sector, as they may be "liable for the consequences of the actions they generate" (Rittel & Webber, 1973:167) to a greater extent. What does such an approach demand of police leaders and police organizations?

Leading interaction at risk in the police

Leadership is often defined as the process whereby one "individual influences a group of individuals to achieve a common goal." (Northouse, 2013:5). The key elements of this general definition may be found in a definition applied by a Leadership Academy for Policing: "the ability to effectively influence and combine individuals and resources to achieve objectives that would be otherwise impossible." (Gibson & Villiers, 2006:6). An equally common way of describing the role of a person that is employed to influence a group towards such a goal is the distinction between management and leadership. According to Pierce and Newstrom (2011), "an effective manager…needs good managerial skills, and if they are managing people, possessing good leadership skills will be beneficial," and vice versa, an effective leader "most likely will need good managerial skills." (2011:xi). It is also common to distinguish between leadership that is characterized by viewing the process of influencing a group towards a goal primarily through the use of transactions, from leadership that leads towards a common goal through the use of vision and inclusion

of employees' views (i.e. "transformational leadership," see e.g. Pierce & Newstrom, 2011). Police leadership is described as neither of these styles exclusively, but rather as a combination of both (Cockcroft, 2014). Despite being described as having a preference for transactional leadership (Silvestri, 2007), some parts of police work may also be associated with transformational forms of leadership (Silvestri, Tong, & Brown, 2013). The dichotomy between transactional and transformational leadership in the police therefore "fails to recognize the nuances of organizational life," and a synthesis of the two leadership models may be a way to overcome these criticisms (Cockcroft, 2014:12).

In addition to the individual roles of leader and manager, leading and managing interaction under risk is influenced by contextual factors such as political aims. What is often the case with complex public-sector objectives is that they may include inherent contradictory demands (Agevall & Jenner, 2016; Granér, 2016). Thus, in addition to leadership in general, leading and managing interaction under risk in the police is also influenced by its context within the public sector. It is also characterized as a form of leadership that has been labelled "operative," in the sense that it potentially includes leading and managing in a context that may pose a threat to the lives of civilians and personnel (Olsen & Eid, 2015). Despite the fact that leadership within the police may be seen as existing within organizational structures that may show similarities to the military, the fire department, as well as the Foreign Service (Gordon, Clegg, & Kornberger, 2009; McKay, 2014; Rothwell & Baldwin, 2007), one challenge is often the described gap between "street cops" and "manager cops" (Reuss-Ianni, 1983/1999). This implies that police employees, despite the structure of their work organization, do not necessarily do as they are told (Andersson & Tengblad, 2009). Furthermore, knowledge-led policing may be questioned and even stopped, on the basis of a police personnel's experience-based knowledge, and professional opinion and judgment (see e.g. Gundhus, 2013).

The Unforeseen

As previously mentioned, some of the most severe cases may also be the rarest. The concept of "the unforeseen" (UN) describes "…any act that

is relatively unexpected and occurs with relatively low probability or predictability to those who experience and must deal with it." (Kvernbekk, Torgersen, & Moe, 2015, 30, translated by the chapter author, se also Chapter 1). Examples of how it may be possible to learn from past experiences when preparing for DU are "unannounced exercises," performed without preparation (Torgersen, Steiro, & Saeverot, 2013:2). The result of such exercises may not necessarily become visible or known to the participants until after the exercise itself, which places emphasis on the role of discussion and reflection. Experiences from planned crisis management exercises on a national level between the Norwegian Police Service, the Norwegian Armed Forces, and other parts of national security (Exercise [Øvelse] Tyr), have shown how having the operative leader (e.g. the Chief of Police), request of his/her colleagues that they play the part of a "critical friend," may influence decision-making and the potential to lead learning from experience (Rosø, 2014).

However, opening up for critical questions alone is not assumed to be sufficient to lead and manage interaction under risk, and influence the ability to lead learning from experience. Particularly in the police it has been shown that opening up for critical input may be challenging because addressing past issues; for instance, actions that are not illegal but still unethical, may expose and potentially self-incriminate police personnel (Hoel & Bjørkelo, 2017). The legal framework that surrounds and is an inherent part of police work may thus potentially hinder leading and managing learning from experience, in the case of cooperation under risk. Other potential obstacles may be interpersonal factors, such as a form of "institutional shame," as police employees, by definition, do not perform illegal acts (see e.g. Wathne, 2012). Furthermore, the surrounding factors of police work may create a situation in which addressing past experiences is not necessarily straightforward (Valland, 2016).

One of the intra-organizational factors that may play a part in the possibility to lead and manage learning from experience in situations including interaction at risk, is the socialization process from education towards profession (Fekjær, Petersson, & Thomassen, 2014; Granér, 2004; Johannessen, 2015; Lauritz, 2009; Reuss-Ianni, 1983/1999; Roberts, Herrington,

Jones, White, & Day, 2016; Rowe, 2005). Several authors have described how Swedish police employees may be met with negative reactions from leaders and managers when attempting to address work tasks, methods and the like, that are perceived as not working well (Kjöller, 2016; Wieslander, 2016). Gendered assumptions and explanations have also been described as factors that influence police leadership (Haake, 2017). This may again limit the potential for leading and managing learning from experience under risk.

Basic police education may be described as an institutional educational practice, where language and social interaction are perceived as the basis for how a social activity is created and recreated (see for instance Phelps, Strype, Bellu, Lahlou, & Aandal, 2016; Sjöberg, 2016). An extension of the basic training is continuing and further education, for example in leadership and management. Such educational programs are based on the view of learning as a lifelong process. Although not part of the same educational pathway in length and time, continuing and further education may be understood as taking part within police organizational and institutional practice (Sjöberg, 2016). Thus, continuing and further education may both be seen as an activity and situation that takes place inside and outside "the police". According to Roberts et al. (2016), "embedding education" during the course of professional police working life may serve the dual purpose of both increasing "leadership" in the workforce as well as ensuring that future police leaders and managers "have the high-level, critical and creative thinking skills that complex problems require." (Roberts et al., 2016:26). In this context, leading and managing learning from experience through DU activities (cognitive, written, oral and physical exercises), may create opportunities for the participants to be affected so that they in turn can "see" their experience, and thereby enable and engage in an interaction about it. But how does this relate to leading and managing interaction under risk? Is it even possible to reflect in the moment of action, and especially when the situation is unforeseen? On-the-spot reflection may not be perceived as possible in action, as it may cause harm to both civilians and police personnel (see e.g., Bergman, 2017). In this respect, "unannounced exercises," performed without preparation, followed by time for reflection and discussion may be of use.

However, in order to evolve, learning implies a need. Thus, even though cases and exercises of the unforeseen may be useful, learning implies a perceived need and openness on the part of participants. A "discrepancy experience" is a term used to describe a situation where an experience comes into our awareness (Lindseth, 2015). Some describe this as realizing that one's current knowledge is insufficient; there is a lack of correspondence between what is expected and what seems to be the case in a given situation (Hugaas, 2014). A discrepancy experience is a situation "where we notice that something is not correct" and where, although our knowledge about what is going on may be good enough, we have reason to doubt (Lindseth, 2012:170, chapter author's translation). It is this doubt that provides the grounds for the discrepancy experience and later learning. So, what does it require of leaders and managers to "see" and experience a discrepancy and be able to assist and create learning from the experience among one's personnel? Especially when addressing past issues may be perceived as a potential threat, leading to self-incrimination and the betrayal of one's team.

In a study that investigated police cases that were legally correct but not necessarily good police practice, the results showed that leading learning from experience mainly took the form of strategies such as "straightening up" one's personnel through instrumental, as opposed to reflective, learning measures (Hoel & Bjørkelo, 2017). Based on the results, suggestions for a stimulating climate for reflection and dialogue around the question "is *this* good police work?", referring to the actual case, were suggested. As a way to bring potential cases of police malpractice to the fore, it was also suggested that going through the experience of being accused might be a way to "see" and experience a discrepancy, thereby creating learning from the experience among one's personnel, and providing a basis for a fundamental change of practice.

Similar to the concept of discrepancy experience, cognitive dissonance is assumed to carry with it the potential for change. The concept of cognitive dissonance describes the experience of "the gap" between, for instance, one's behavior and one's basic values (Elliot & Devne, 1994; Festinger, 1957). Studies have documented that being able to obtain or create dissonance can have a major impact on health behaviors as well as

political affiliations (Bernstein, Alison, Roy, & Wickens, 1997). In the case of the lack of police quality in cooperation under risk, being accused of poor quality work in a national official report is presumably a potential experience that is remembered. However, due to the interpersonal bonds between police employees, the processes of socialization and professional shame, this alone may not enable learning. Thus, experiences of discrepancies and cognitive dissonance may be examples of underlying conditions for leading and managing learning from experience in the case of interaction under risk in the police. But how?

Some argue that it is the leader and manager's responsibility to "ensure that their team gets the experiences they need to acquire knowledge." (Effron, 2008:229) However, experience in itself may not be enough to enable learning. Police leaders may therefore potentially profit from arranging "unannounced exercises" of cooperation under risk for their personnel, based on previous actual experiences, if these are followed by reflection and discussion in a climate of trust. Previous studies have documented the impact of trust in teams (Moldjord & Iversen, 2015). Trust may also play a part in building a future bridge between "knowing-in-action" and "reflection-in-action" (Schön, 1992:123). "Knowing-in-action" is how we may learn to "see" (observe), "reflect on, and describe our knowing-in-action". We can test our descriptions for example by writing down how we *usually* act in certain situations and thereafter *observing* "what happens when other people try to follow them." (Schön, 1992:124). On the other hand, "reflection-in-action" may be useful when attempting to make sense of "on-the-spot" actions (Schön, 1992:125), such as the unnanounced excerises. It may also be of value in drawing attention to leading and managing based on change and complexity, rather than predictability and control; encouraging one to "…take ordinary, everyday experiences seriously," and shift focus from systems to relations, movements and "ongoing ethical and moral evaluation" (Johannessen, 2009:225). Thus, nurturing the moral paradox of police leadership may in itself "sustain movement and tolerance of the known and the unknown – the expected and the unexpected." (Johannessen, 2015:179).

Conclusion – a model

This chapter has discussed what some of the underlying conditions for leading and managing learning from experience in the case of interaction under risk in the police may be. Specifically, conditions of learning located *between* the expressed and executed, that is, *between* the institutional and cultural that deal with "wicked" problems that in themselves may be unsolvable. One of the answers may lie in a model of *Leading and managing interaction under risk in the police*, which takes into account both context and potential underlying conditions for learning from experience.

Contextual factors may include (1) leadership style, with both elements from transformational and transactional ways of leading and managing; (2) its position within the general public sector, with its "wicked problems" that may be inherently unsolvable; and (3) the influences of interpersonal and socialization processes, and professional shame. In addition to these, there is also the impact of the current reigning economic and managerial ideology (e.g. New Public Management (NPM) in public sector, Christensen & Lægreid, 2001). As a process, a preliminary model of leading and managing interaction under risk in the police will have several similarities with general models of experiential learning, (such as Kolb's learning circle, cf. e.g., Kolb & Kolb, 2005 and Lauritz, Åström, Nyman, & Klingvall, 2012). However, in order to provide "unannounced exercises" of cooperation under risk for their personnel based on previous actual experiences, police leaders and managers may also need to take into account notions of leadership that are based to a greater extent on complexity in everyday life rather than learning as a linear and instrumental process. "Managing the unexpected is not simply an exercise in going down a checklist." (Weick & Sutcliffe, 2015:vii). Simultaneously, leading and managing under risk also requires adherence to risk and action lists during crisis. To sum up, the model proposed here may potentially influence all three levels of the bow-tie model (see Chapter 1): (1) what will be interpreted as a warning sign in the future; (2) how one plans for and reacts to the unforeseen; and (3) how recovery is understood and applied in practice.

References

Agevall, L., & Jenner, H. (2016). Dealing with dilemmas: A fundamental task in police work. In C. Aili, L.-E. Nilsson, L. G. Svensson, & P. Denicolo (Eds.). *In Tension Between Organization and Profession. Professionals in Nordic Public Sector*. 169–191. Lund: Nordic Academic Press.

Andersson, T., & Tengblad, S. (2009). When complexity meets culture: New public management and the Swedish police. *Qualitative Research in Accounting & Management, 6*(1/2), 41–56.

Bergman, B. (2017). Reflexivity in Police Education: Voices of Swedish Police Officers on Field Training of Probationers. *Nordic Journal of Studies in Policing, 4*(1), 68–88. doi:10.18261/issn.1894-8693-2017-01-06

Bernstein, D. A., Alison, C.-S., Roy, E. J., & Wickens, C. D. (1997). *Psychology* (4th ed.). Boston, New York: Houghton Mifflin Company.

Christensen, T., Danielsen, O. A., Lægreid, P., & Rykkja, L. H. (2016). Comparing, coordination structures for crisis management in six countries. *Public Administration*, *94*(2), 316–332. doi:10.1111/padm.12186

Christensen, T., & Lægreid, P. (2001). *New Public Management. The Transformation of Ideas and Practice*. Aldershot: Ashgate.

Christensen, T., Lægreid, P., & Rykkja, L. H. (2016a). Ambiguities of accountability and attention – Analyzing the failure of a preventive security project. *Scandinavian Journal of Public Administration, 20*(1), 21–44.

Christensen, T., Lægreid, P., & Rykkja, L. H. (2016b). Organizing for crisis management: Building governance capacity and legitimacy. *Public Administration Review*. doi:10.1111/puar.12558

Cockcroft, T. (2014). Police culture and transformational leadership: Outlining the contours of a troubled relationship. *Policing, 8*(1), 5–13. doi:10.1093/police/pat040

Effron, M. S. (2008). Knowledge management involves neither knowledge nor management. In J. V. Gallos (Ed.), *Business Leadership: A Jossey-Bass Reader*. 221–229. San Francisco, California: John Wiley & Sons, Inc.

Elliot, A. J., & Devne, P. G. (1994). On the motivational nature of cognitive dissonance. Dissonance as psychological discomfort. *Journal of Personality and Social Psychology, 67*(3), 382–394. Retrieved from doi:10.1037/0022-3514.67.3.382

Fekjær, S. B., Petersson, O., & Thomassen, G. (2014). From legalist to Dirty Harry: Police recruits' attitudes towards non-legalistic police practice. *European Journal of Criminology, 11*(6), 745–759. doi:10.1177/1477370814525935

Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Evanston, Illinois: Row Peterson and Company.

Fimreite, A. L., Langlo, P., Lægreid, P., & Rykkja, L. H. (2013). After Oslo and Utøya: A shift in the Balance between security and liberty in norway? *Studies in Conflict and Terrorism*, *36*(10), 839–856. doi:10.1080/1057610X.2013.823754

Gibson, A., & Villiers, P. (2006). *Leading for Those We Serve. The Police Leadership Qualities Framework*. Leadership Academy For Policing/Centrex.

Gordon, R., Clegg, S., & Kornberger, M. (2009). Embedded ethics: Discourse and power in the New South Wales Police Service. *Organization Studies, 30*(01), 73–99. doi:10.1177/0170840608100515

Granér, R. (2004). *Patrullerande polisers yrkeskultur. [Patrol Officers Occupational Culture].* Lund: Socialhögskolan, Lund University.

Granér, R. (2016). Police work between legitimacy and efficiency: Handling the expectations on the role of the police. In C. Aili, L.-E. Nilsson, L. G. Svensson, & P. Denicolo (Eds.), *In Tension Between Organization and Profession. Professionals in Nordic Public Sector.* 303–321. Lund: Nordic Academic Press.

Gundhus, H. I. (2013). Experience or knowledge? Perspectives on new knowledge regimes and control of police professionalism. *Policing, 7*(2), 178–194. doi:10.1093/police/pas039

Haake, U. (2017). Conditions for gender equality in police leadership – making way for senior police women. *Police Practice and Research*. doi:10.1080/15614263.2017.1300772

Hoel, L., & Bjørkelo, B. (2017). "Kan *det* være godt politiarbeid?": En undersøkelse av erfaringslæring av gråsonesaker ["Is *that* good-enough policing?" An investigation of learning from experience of grey area cases]. *Nordic Journal of Studies in Policing, 4*(2), 187–210.

Hugaas, A. G. (2014). Svarevne, fortelling og praktisk yrkeskunnskap [Response ability, narrative and practical professional knowledge]. In A. B. Groven, A. Knutas, & A. Holm (Eds.), *FoU i praksis 2013 Conference Proceedings* (pp. 142–152). Trondheim: Akademika forlag.

Johannesen, S. O. (2009). The complexity turn in studies of organizations and leadership: Relevance and implications. *International Journal of Learning and Change*, *3*(3), 214–229. doi:10.1504/IJLC.2009.024689

Johannessen, S. O. (2015). Reforming the Norwegian Police: Cultural Change as a Restoration of Organizational Ideologies, Myths and Practices. *Nordic Journal of Studies in Policing, 2*(2), 167–182.

Kjöller, H. (2016). *En svensk tiger. Vittnesmål från poliser som vågat ryta ifrån. [A Swedish tiger: Testimonies from police employees that have dared to speak up].* Lidingö: Fri Tanke Förlag.

Kolb, A. Y., & Kolb, D. A. (2005). Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education. *Academy of Management Learning & Education, 4*(2), 193–212. Stable URL: <http://www.jstor.org/stable/40214287>.

Kvernbekk, T., Torgersen, G.-E., & Moe, I. B. (2015). Om begrepet det uforutsette [About the concept of the unforeseen]. In G.-E. Torgersen (Ed.), *Pedagogikk for det uforutsette [Pedagogy for the Unforeseen].* 28–55. Bergen: Fagbokforlaget.

Lauritz, L. E. (2009). *Spirande polisidentiteter: En studie av polisstudenters och nya polisers professionella identitet*. PhD Dissertation. Umeå: Handelshögskolan Umeå University.

Lauritz, L. E., Åström, E., Nyman, C., & Klingvall, M. (2012). Police Students' Learning Preferences, Suitable Responses from the Learning Environment. *Policing, 7*(2), 195–203. doi:doi:10.1093/police/pas009

Lindseth, A. (2012). Praktisk kunnskap [Practical knowledge]. In K. J. Ims & Ø. Nystad (Eds.), *På tvers: praksiser og teorier om økonomi, kultur og natur for det nye årtusen: Festskrift til Ove Jakobsen* (pp. 157–173). Bodø: Universitetet i Nordland.

Lindseth, A. (2015). Svarevne og kritisk refleksjon]Response ability and critical reflection]. In J. McGuirk & J. Methi (Eds.), *Praktisk kunnskap som profesjonsforskning* (pp. 43–60). Bergen: Fagbokforlaget.

Lægreid, P., & Rykkja, L. H. (2014). Organisering for samfunnstryggleik [Organising for societal safety]. *Stat & Styring* (1), 11–13.

McKay, R. B. (2014). Confronting Workplace Bullying: Agency and Structure in the Royal Canadian Mounted Police. *Administration & Society, 46*(5), 548–572. doi:10.1177/0095399713509245

Moldjord, C., & Iversen, A. (2015). Developing vulnerability trust in temporary high performance teams. *Team Performance Management, 21*(5–6), 231–246. doi:10.1108/TPM-08–2014-0050

Northouse, P. G. (2013). *Leadership: Theory and Practice* (6th ed.). Los Angeles: Sage.

NOU 2012:14. (2012). *Rapport fra 22. juli-kommisjonen [Report from the 22nd of July Commission]*. Oslo: Departementenes servicesenter.

Olsen, O. K., & Eid, J. (2015). Operativ ledelse [Operative leadership]. In S. Einarsen & A. Skogstad (Eds.). *Ledelse på godt og vondt [Leadership in good and bad]*. 153–168. Bergen: Fagbokforlaget.

Phelps, J. M., Strype, J., Bellu, S. L., Lahlou, S., & Aandal, J. (2016). Experiential learning and simulation-based training in Norwegian police education: Examining body-worn video as a tool to encourage reflection. *Policing*. doi:10.1093/police/paw014

Pierce, J. L., & Newstrom, J. W. (2011). *Leaders & Leadership Process, Readings, Self-Assessments & Applications* (6 ed.). New York: McGraw-Hill Irwin.

Reuss-Ianni, E. (1983/1999). *Two Cultures of Policing: Street Cops and Management Cops*. New Brunswick, New Jersey: Transaction Books.

Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a General Theory of Planning. *Policy Sciences, 4*(2), 155–169. doi:10.1007/BF01405730

Roberts, K., Herrington, V., Jones, W., White, J., & Day, D. (2016). Police leadership in 2045: The value of education in developing leadership. *Policing, 10*(1), 26–33. doi:10.1093/police/pav045

Rosø, E. (2014). *Evalueringsrapport Justissektorens innsats øvelse Gemini 2014 [BEGRENSET] [Evaluation report for the justice sector efforts exercise Gemini 2014] [LIMITED]*. Oslo:The Norwegian Police University College.

Rothwell, G. R., & Baldwin, J. N. (2007). Whistle-blowing and the code of silence in police agencies: policy and structural predictors. *Crime & Delinquency, 53*(4), 605–632.

Rowe, M. (2005). Following the leader: front-line narratives on police leadership. *Policing: An International Journal of Police Strategies & Management, 29*(4), 757–767. doi:http://dx.doi.org/10.1108/13639510610711646

Schön, D. A. (1992). The theory of Inquiry: Dewey's legacy to education. *Curriculum Inquiry, 22*(2), 119–139.

Silvestri, M. (2007). 'Doing' police leadership: Enter the 'new smart macho'.. *Policing & Society, 17*(1), 38–58. doi:10.1080/10439460601124130

Silvestri, M., Tong, S., & Brown, J. (2013). Gender and police leadership: Time for a paradigm shift? *International Journal of Police Science & Management, 15*(1), 61–73. doi:10.1350/ijps.2013.15.1.303

Sjöberg, D. (2016). *Simuleringens situerade aktiviteter. Förutsättningar för lärande i polisutbildning [The simulation's situated activities. Conditions for learning in police education]*. Umeå University. PhD Diss.

Torgersen, G.-E., Steiro, T. J., & Saeverot, H. (2013). *Strategic Education Management: Outlines for a Didactic Planning Model for Exercises and Training of the Unexpected in High Risk Organizations*. The 22nd Society for Risk Analysis Europe (SRA E) Conference, July 17–19, Trondheim. Presentation paper.

Valland, T. D. (2016). Frykten for feil i politiet [The fear of mistakes in the police]. *Sosiologi i dag, 26*(1), 32–53.

Wathne, C. T. (2012). The Norwegian police force: A learning organization. *Policing: An International Journal of Police Strategies & Management, 35*(4), 704–722. DOI: 10.1108/13639511211275535

Weick, K. E., & Sutcliffe, K. M. (2015). *Managing the Unexpected: Sustained Performance in a Complex World* (3 ed.). Hoboken, New Jersey: Wiley

Wieslander, M. (2016). *Den talande tystnaden: Utvärdering om anställdas uttrycksmöjligheter i polisområde Östergötland. [The talking silence: An investigation into the possibilities of speaking up in the police areas of East Gothland]*. The Swedish Police Authority, Police Area East Gothland.