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Introduction

In this paper, we explore collaborative work on the integration of criminal intelligence as an important part of problem-solving in police crisis management during acute crises. Efficient crisis management needs crisis teams practicing clear communication (McIntyre and Salas, 1995), timely and integrated coordination (Renå, 2019) and shared situational awareness (Endsley, 1995). The role of collaboration is crucial (Sawalha, 2014). Collaborative work in crisis management involves joint activities where team members engage in active task execution, sharing information and their understanding of the situation to co-create an "updated" and collective understanding and which short-term and long-term actions to take (Uitedewilling and Waller, 2018).

Crisis management involves collaboration among different disciplines, specialists, methods, and logics (Schraagen and van de Ven, 2011). The literature argues that different competencies and uniqueness provide opportunities for coordinated efforts and expertise (Gilling, 2005). However, it also expresses concern that different specialisations might be lost through a lack of professional autonomy in collaborative work (Gopee and Galloway, 2009; Pihl, 2011). Research on collaborative work has revealed various issues; competing logics, role boundary issues, expertise and differences in status, scope of practice, accountability and professional hierarchy (Brown et al., 2010; Johannessen, 2018).

Traditionally, the Norwegian police's crisis management, the focus of the present study, has been consisted of personnel with operative competence. Along with the integration of the Intelligence Doctrine in 2014 in the Norwegian police, the use of intelligence has been included in crisis management. Collaboration and information sharing *within* crisis teams is critical. Poor internal police collaborative work with respect to managing intelligence can have significance for vital cross-sector collaboration on-site (Lionel, 2002). Regarding the role of intelligence and collaboration in crisis management during an acute, major crisis, there is little empirical research. Løkken and Rabben's (2021) master's thesis points out that collaboration between intelligence officers and operative officers, has been difficult in Norwegian crisis management. Investigation of the police crisis team's practice of interprofessional collaborative work and sharing and using intelligence is needed. To our knowledge, previous research has overlooked how differences in specialisation, role understanding, and work method play out during major, acute crises.

In this paper, we ask: What affects the collaborative sharing of information and intelligence between operational and intelligence officers in crisis management to support planning and decision making during acute crises? The study is based on crisis managers' experience from practicing crisis management, elicited by in-depth interviews. An aim is to gain insight into the social prerequisites needed for crisis managers' collaborative work to be coherent and meaningful, when time is critical. The study does not examine how intelligence is (pre)gathered and analysed ahead of a crisis (see Lionel, 2002), nor the usefulness of the Intelligence Cycle (see Hulnick, 2006; Phythian, 2013) in intelligence-led crisis management.

In theory, crisis management teams form social units with a shared goal. We found the theory of community of practice (CoP) (Lave and Wenger, 1991; Yakhlef 2018; Wenger, 1998) fruitful in exploring this research question. The CoP perspective in police research is rare (Yakhlef, 2018), yet it is a fruitful theoretical perspective for examining collaboration and the negotiation of meaning within communities (Wenger 1998; Laat and Broer, 2004; Lundin and Nuldén 2007; Yakhlef 2018).

The theoretical framework for our analysis is elaborated first, then the context of our study, which has two aspects: crisis management and criminal intelligence. Our methods and results are then presented. Finally, in the Discussion section, the findings are discussed against theory in respect of what is required for collaborative work between operative and intelligence officers to co-create a collective understanding during an acute crisis.

Creating a common sense of reality in crisis

CoPs are shaped around a common ground of competencies forming the practitioners' identity, thinking, norms and values (Lave and Wenger, 1991; Wenger, 1998). CoPs develop their own unique knowledge (Beckhy, 2003) and subculture. It is commonly argued that the police consist of various rather than one police culture (Cockcroft 2020; Filstad, 2022; Gundhus, 2012; James et al., 2017; Skolnick, 2008). These subcultures are also claimed to have different logics, for instance an instrumental logic and operational logic, which can contradict one another (Johannessen, 2018). This article concentrates on operational and intelligence subgroups (Gundhus, 2012; Syrjä, 2019) as different CoPs involved in crisis management. Their practices have different presumptions, logics and competencies guiding what is important, meaningful, and the rationale for decision-taking (Gundhus et al., 2018). Their basic assumptions and interpretations are often taken for granted, reflecting a common understanding of how to think about work and how things connect and relate (Gundhus et al., 2018).

Cultural understanding is closely related to knowledge regimes and domains (Syrjä, 2019). Police law enforcement is claimed to have an occupational culture valuing contextual, tacit, and intuitively experiential knowledge (Gundhus, 2012; Syrjä, 2019) with a higher standing than more analytic and explicit knowledge, which is thought of as abstract and generated through a systematic, analytic process lacking context when presented in reports (Gundhus, 2012). Analytic knowledge is associated with police intelligence and crime prevention (Syrjä, 2019). These two practices and knowledge domains are, on a day-to-day basis, commonly seen as being in opposition to one another (Belur and Johnson, 2018; Gundhus, 2012; Reiner, 2010; Syrjä, 2019). For instance, James et al.'s (2017) research on intelligence in police practice in England and Wales, showed an "us and them" – culture, intelligence work not matching with the operational world. The police were dominated by an "action-oriented" culture, which restrained the "organisation's understanding of intelligence in practice" (James et al. 2017:77). Despite the policy makers' focus on knowledge-based policing, Belur and Johnson's (2018) and Syrjä's (2019) findings both show the police is still dominated by a reactive approach to crime, and intelligence analysts, developing analyses of future crime trends demanding more analytic and time-consuming processes, struggling to meet operational officers' expectations of "fast" and current intelligence.

Over time, engagement in practice shapes embodied, tacit knowledge (Polanyi, 1958) making it difficult both to articulate and share, and to understand other CoPs' knowledge (Beckhy, 2003). Syrjä (2019:147) emphasises this by showing how investigators' understanding of intelligence analysis "revolve[s] around their investigation-related knowledge role", indicating that knowledge of one community, may not be understandable by another community (see Beckhy, 2003). Instead, CoPs construct their own unique identity and shared meaning developed through a common sense of reality (Weick et al., 2005), creating knowledge boundaries between CoPs. Crossing knowledge boundaries in interprofessional collaboration requires that, as Carlile (2002, 2004) argues, knowledge is transferred between CoPs, translated and transformed.

The study's context: crisis management and criminal intelligence in the Norwegian police

Society experiences major crises when incidents, requiring an urgent response and critical decision-making, unexpectedly threaten its core values, life, or the environment (Boin and Bynander 2015; Quarantelli 1997; Rosenthal, et al., 1989). These may be, for instance, terror attacks, school shootings, hijacking, avalanche, or sabotage. Such crises are time critical and create a chaotic context demanding clear command and control structures and workflow (Hoel and Mehus, 2022, Sommer et al. 2017) and instant handling with determination and predictability (Christensen et al., 2020). Critical tasks of crisis management are sense making, decision making, and meaning making (Boin et al., 2005), based on a shared and collective understanding of the 'common operational picture' (Wolbers and Boersma 2013; Uitedewilling and Waller, 2018). This implies the ability to understand the meaning of the shared information in an integrated way, and its significance for other parts of the crisis management.

The Incident Management Staff

Internationally, different command and control structures are deployed to ensure efficient crisis management and time critical communication (see Moynhan, 2009). In Norway, when major crises unexpectedly occur and the control room supervisors have insufficient resources and competence to handle that crisis, the Incident Management Staff (henceforth abbreviated to 'staff') is temporarily mobilised, to reinforce the operational level (control room) (Rosø and Torkildsen 2015:305). The chief of staff assumes overall operational leadership and responsibility for coordination between the cross-sectors' emergency responders on-site (Police Directorate, 2020). In addition to the chief of staff, the staff comprises seven key functions (P1-P7) each with their head of function in the staff (Police Directorate, 2020):

P1 head of personnel.

P2 head of investigation.

P3 head of operational planning (coordination operational tasks).

P4 head of logistic: food, transport, shelters.

P5 head of communication.

P6 assesses the legal aspects.

P7 other expertise.

The head of intelligence is to take part in the staff's planning and collaborate closely with the head of operations whose main task is to assess operational measures relevant to the implementation of both existing emergency plans and alternative planning (Rosø and Torkildsen, 2015). The head of intelligence is supported by an intelligence sub-commander and criminal analysts who analyse information, producing hypotheses and risk assessments to present in staff meetings, which, in turn,

the head of operations is to use in the planning of police operations. In this paper, the control room supervisor, chief of staff and head of operations represent the “operational officers”. The head of intelligence, the sub-commanders and the analysts constitute the “intelligence officers”.

Criminal intelligence in crisis management

Along with the demand for increased professionalism within the police (Gundhus 2012, NOU 2012:14) and the implementation of the latest police reform (Filstad, 2022), the Norwegian Police Directorate implemented, in 2014, the Intelligence Doctrine describing intelligence work through the Intelligence Cycle¹. This emphasises intelligence as the main strategy for preventive policing, applied at all levels of policing (Larsson et al., 2023:17). The Police Directorate (2020:22) claims that the doctrine plays an important, preventive role in the police’s daily preparedness work, including support in major crises, where the overall task of the intelligence function is, on request from the staff, to:

gather and process information to gain knowledge of what has happened, and predict the threat picture the police are responsible for handling. (...) the intelligence function is more closely linked to functions with a large supply of information and where decision-making processes take place (authors’ translation).

The strong emphasis on criminal intelligence as supporting planning and decision-taking during major crises, actualises the police’s intelligence officers as central participants in the collective work of crisis management.

The staff is a formally constituted group of professionals holding the differing, pre-decided expertise needed in handling crises. They are recruited based on their competence (Rosø and Torkildsen, 2015). The staff – which over time has managed crises and trained for them – can be defined as a CoP, a group of professionals sharing a set of problems to be solved and training their interaction regularly to deepen their knowledge and expertise.

This places the means of co-creating a collective sense of reality, in this case between operative and intelligence practices, and the way in which theoretical concepts such as CoPs, knowledge boundaries and differences in logics have a bearing on communication, sense-making and collaboration, at the centre of our research.

Method

The study is based on in-depth interviews conducted in nine of 12 Norwegian police districts. There were 24 voluntary participants holding leadership and support positions. Five chiefs of staff, six head of operations, seven intelligence officers, and six control room supervisors. There were two selection criteria: that the participants had engaged in the Crisis Management and Leadership programme at the Norwegian Police University College (Polithøgskolen, 2016), and had an active role in exercises and training. All had police training and long experience from daily police work in their particular function and role.

On request, the Police University College provided a list of names and contact details of those who had been involved in the programme. Participants were contacted by e-mail with information about the research project and the ethical research guidelines and invited to participate. All, except one chief of staff, replied positively.

The study uses an ethnographic approach by observations and interviews. The first author has for several years been an observer at local and national staff exercises in various police districts in Norway. Based on insights from observation, a semi-structured interview-guide was developed including general questions asked of all participants, and specific questions relating to functions and roles. The interviews took place between 2018 and 2020. Prior to Norway's COVID shutdown (13th March 2020) the interviews were conducted at the informant's workplace; after that by telephone. The interviews were recorded and transcribed.

A thematic analysis (Braun and Clark, 2006) conducted in three stages was applied. First, a thorough reading of each interview to form an overall impression. Next, units of meaning were identified, coded and placed in code-groups in Nvivo (v. 12). Code-groups were further analysed into flexible themes and sub themes through feedback-loops with established theory. The themes represent essential patterns within the data and is arranged into a coherent narrative with respect to management of acute crises. The fieldnotes are used primarily to provide a context for the analysis.

Strengths and limitations

The selective recruitment of participants is a strength. All had participated in the programme and played an active role in local and national staff exercises where collaboration and information sharing are central to the training. A limitation is that in major crises the largest police districts reinforce their line management and do not mobilise the staff. Hence, these participants' experience of crisis management was largely related to major, acute crisis exercises. However, several participants had experience of staff management of real major, acute crises. Data was conducted by four persons with various roles in the research project. Collaboration between first author and a co-worker in designing the interview guide is a strength in minimising potential bias. Additionally, the interviews were conducted by the first author and three other colleagues. The collaboration made us focus on the same questions during the interviews. Collaboration in initial coding of the data was helpful in avoiding bias and in familiarising ourselves with the data. The data analysis is validated by feedback-loops with established theory, and dialogue between the first- and second author.

Results

Three main issues influencing efficient collaboration and sharing information and intelligence are discussed below. These are, 1) structures impeding collaboration and development of common understanding, 2) knowledge gap creates difficulties in sharing information, 3) problems with trusting the intelligence analysis in decision-making meetings.

Structures impeding collaboration and development of common understanding

The first finding indicates that collaboration with respect to the intelligence officers' hypothesis and the operational officers' operational planning is impeded due to the staff's work structure and time critical response.

Some words about the staff's work- and meeting structure

Staff meetings are led by the chief of staff. In the first staff meeting, the control room supervisor informs the staff about the situation. Before the heads of function return to their own units to start

working, the chief of staff presents a meeting schedule for the coming hours. The operational officers start operative planning, while intelligence officers start to develop their hypotheses, mostly based on the information held in the police's data systems and OSINT.

Next, the staff meets again. Staff meetings have a specific structure. In short, the control room supervisors hold an operational briefing of the latest developments. Then, the chief of staff opens the meeting by inviting the head of intelligence to present hypotheses predicting possible future events to set a clear and common direction for the operational handling and planning of the incident response. Then follows the head of operation presenting the operational plan. The staff members are solely to present their information and not to start discussing this. The rigid structure is implemented to efficiently create a common understanding of the situation to decide on how to operate. If the head of intelligence and head of operation need more time to talk regarding planning, they conduct a "planning meeting" following the staff meeting.

Collaboration or disengagement with respect to hypotheses and the operational plan

The first hindrance to efficient collaboration seems to appear in the very first staff meeting when the head of intelligence presents intelligence hypotheses. The collaboration regarding the hypothesis seems to be a contentious issue among staff members. Intelligence officers claimed that operational officers appeared not to understand how to use hypotheses in planning. Operational officers claimed that hypotheses were crucial for their operational planning but lacked substance and relevance.

A chief of staff said that officers are not comfortable using hypotheses when planning their response. Operational officers said they were not familiar with working with hypotheses. The officers said that it was difficult to interpret hypotheses to incorporate them in their operational plan. They claimed that hypotheses are relevant if intelligence officers can justify them, which was not the case. For instance, an operational officer claimed that: "It's a good way of working, if you can substantiate your hypotheses. That it's not just plucked out of the air." Some operational officers claimed to need more training "to translate" hypotheses, others wanted help with making sense of the information's relevance to their operational work. One said:

We get information that's far, far away from my world. I must translate it into my operative world. I want help with that. The head of intelligence is a police officer. He should not only tell, but also get involved in assessing - what should we do?

These quotes indicate that the heads of operation do not understand how to transform the hypotheses in their planning and expected both training and help from the head of intelligence. An interpretation is that the operational officers need to collaborate with intelligence officers in order to understand the meaning of the hypothesis. To have it presented as shared information is not sufficient.

The intelligence officers have observed the operational officers' troubles using hypotheses. They claim that they found no sign of their hypotheses being embraced or operationalised into concrete

measures with respect to planning. An analyst said: “We formed hypotheses, but they really needed to be anchored among the staff, to have proper effect. The staff must own the hypothesis. The problem was that they didn’t, and that they worked without regard to them.” In line with this, an intelligence sub-commander said: “My impression is that the staff didn’t take onboard head of intelligence’s presentation of hypotheses. They planned without them. I don’t know if they are able to use hypothesis.”

An interpretation of these quotes is that intelligence officers are distancing themselves from the operational work. They rather seem to interpret their role as being the messenger, leaving the interpretation of the message to the operational officers.

Considering the context of crises and the rigid structure of the staff’s work method, the difficulty with collaboration becomes an issue of structure that from the beginning onwards, separates the staff members: Hence, the operational officers presenting their plans without taking the hypotheses into consideration. Intelligence officers found that decisions had been taken before they had time to present their hypotheses in the first staff meeting. One said: “It’s natural that the staff, whilst we sit and work towards hypotheses, begin to form their own judgements. If these count more than our hypotheses, I don’t know. But it looks a bit like it.” Another found that the staff was not engaged with his presentation because decisions were already taken: “Sometimes, when I presented hypotheses, it felt like decisions had been made beforehand. It’s like ‘I hear what you say, and that’s fine.’” Another participant said that some staff members were not receptive to the hypotheses, “almost distancing themselves from them by making their own assumptions”. An acute crisis demands a swift police response, and time is critical, hence the strict work structure. Nonetheless, the work structure seem to impede collaboration with respect to the hypothesis significance for the police response. This leaves the participants experiencing the other part as disengaged in respect of finding a mutual engagement, developing a common understanding.

Knowledge gap creates difficulties with sharing information

Information comes into the different police units from various sources. Essential pieces of information, together forming the overall picture are scattered between the various heads of function and the control room supervisors. The work structure is designed to ensure that information follows an orderly workflow, everything of importance being shared with the intelligence unit who claim that their role is central to seeing the whole of the big picture so that appropriate decisions and actions can be taken by the chief of staff. Both sides expressed problems with the other part not understanding their need for information and blaming the other for withholding information.

The operational side claimed that intelligence officers gave them “useless information” not helping them to manage the present situation. The control room supervisors said that their job is to handle major crises in real time, not to look ahead and think of possible future scenarios. One said: “We need to think what to do *here and now* (participant’s emphasis). Not far ahead. That is what the staff does.” Another talked about an experience where intelligence officers had not understood his informational needs in handling the ‘here and now’: “They got loads of information that we didn’t get to know. So, they had much more meat on the bones than we did. Then you must ask [said in a

rhetorical manner]: ‘Is this information something the control room supervisors need, to manage the operation?’”

Similarly, heads of operations emphasised that heads of intelligence should assist tactical assessment by presenting a situational picture of the “here and now”. A head of operations criticised intelligence officers for providing irrelevant information. He spoke about a major incident involving the search for a dangerous man carrying a knife. He asked the head of intelligence for a situational update supporting the planning of approach. He said:

So, then, I asked the head of intelligence for an updated picture of the person concerned: What’s his position now? Who is he? What state is he in? These go right to the situational awareness of what’s happening right now. Intelligence just gave me the man’s previous history.

Another head of operations referred to an incident where the head of intelligence had “provided completely useless information [...]. He thought that was what intelligence officers should give us. They haven’t grasped what it is I need”.

These quotes reflect mistrust towards the intelligence officers, and the intelligence product not providing information useful either for the immediate operational handling of the crisis, or the head of operations’ tactical planning. This indicates a lack of understanding regarding the roles of intelligence in managing crises, indicating knowledge gap regarding what meaning a piece of information may represent to the analysts.

Intelligence officers claimed that operative officers did not understand how intelligence is created; how the items of information reaching them were critically important in terms of the ever-emerging bigger picture regarding potential threats. And that their work is not to offer isolate bits of unvalidated information, but rather to assemble these pieces into an analysis and intelligence product supportive of decision making. For instance, an analyst said: “The control room supervisors don’t have the bigger picture, and don’t understand the inter-relatedness of the information. When we assemble the information into a bigger picture it looks different than to those who only see a little bit of it.” Intelligence officers claimed that due to the lack of understanding of how information adds value to intelligence work, critical information was bypassed. A head of intelligence claimed that: “[O]ur greatest difficulty is that some control room supervisors bypass the line and take information straight to a staff member or, often, straight to the chief of staff, rather than through the intelligence officers.” Another spoke about a situation where he presented updated intelligence during a staff meeting only to realise that the control room officers had significant information regarding assessment of the threat level: “There are examples where midway through my presentation it becomes clear that the control room has unshared information that may have altered the threat level.” Agreeing, a chief of staff explained that, as the control room supervisors operate “here and now”, they tend to proceed on the basis of new information without going via the intelligence side, avoiding giving them the chance to “wash” it, implying critical questions about the credibility of the source and therefore the validity of the information. The intelligence side spoke of similar examples.

The data analysis reveals difficulty regarding collaboration due to lack of understanding of the significance of information for each other's tasks. A piece of information can constitute one meaning for intelligence officers, and another for the operative functions. The data indicate a fundamental lack of understanding among the operative officers regarding how intelligence is created leading, potentially, to a lack of communication of significant information, impeding a common operational picture of the situation's level of threat.

The problems with trusting the intelligence analysis in decision-making meetings

To end a major crisis, the staff needs to reach a final decision on how to proceed operationally approach. A classic dilemma often arising with respect to stop a terrorist attack, is either to storm the crime scene, carrying the risk of something going wrong, or to be patient, wait and start negotiating, hoping for the terrorist to surrender. The heads of function support the chief of staff's decision-making with information and intelligence adding value in both the ongoing situation (stopping the bleeding and preventing further damage) and the future investigation of the attack.

Intelligence officers talked about conflict in decision-making meetings regarding the police response, claiming that they brought a different mindset and logic concerning measures based on analysis of multiple data sources. They said that the staff handled crises solely on the basis of their experience and operative mindset, not questioning slower, cautious approaches. Intelligence officers expected the chief of staff to be more critical of operational officers' plan, and to question if the crisis response "could be softer, more preventative, using civilian police instead of going in with full force and fully helmeted?" - as one said. Another head of intelligence also reflected that he misses the chief of staff having a more critical approach to the management plan and the response to crises.

Instead, during decision-taking meetings with managers with decision-taking authority present, intelligence officers found sharing information about situational development leading to negotiations about not raising the threat level. A head of intelligence talked about a decision-making meeting, which he had informed about developments in a hostage situation. Although the situation had developed in a more critical direction, the analysis prediction implied not raising the threat level. The head of intelligence said: "The staff became very impatient, yet based on our analysis of the situation, we continued to believe that negotiation with the terrorist remained the most likely way of resolving the situation." Intelligence officers talked about instances of the operational plan leaving little room for alternative approaches due to the staff's "operational directness". An intelligence officer experienced it being difficult to have any effect in an operative setting due to the unbalanced competence within the staff: "The operational staff members are forceful, the control room supervisor is forceful, and the head of operations is forcefully operational. It can be difficult for the head of intelligence to command sufficient weight to be able to change the operational plan".

An interpretation of the intelligence officers' experience is that the operative officers' solution was uncompromising and biased, whilst they brought a more analytic, nuanced approach to the crisis and its resolution, based on multiple information sources, holding greater significance in respect of decision about the incident response. Distrust of the intelligence analysis led to negotiation and professional struggles in decision-making meetings regarding who is to influence the operation, and how.

Discussion

Our research identifies several important challenges affecting collaborative work between operational officers and intelligence officers during the management of major, acute crises. The study shows the work structure appearing to impede collaboration regarding shared meaning-making between intelligence officers and operational planning. The findings also indicate a failure to create a shared understanding of reality; neither trusting each other's skills, nor knowing how to transform them into practice. We found stereotypical attitudes to each other due to a knowledge gap about the meaning of "information". But also, using intelligence to support planning and decision-making during crises is still at an early stage and is not well integrated in crisis management.

These findings relate to major, acute crises, yet echo other studies with respect to integration of criminal intelligence and analysis in everyday policing (see for instance Belur and Johnson, 2016; Gundhus, 2012; Hulnick, 2006; James et al., 2017; Santos and Taylor, 2013; Syrjä, 2019). The findings demonstrate problems with how intelligence and operational work are organised in everyday policing, representing silos and therefore knowledge boundaries between their respective responsibilities (Filstad, 2022).

Work structures reinforce knowledge boundaries

In crises, time is critical, and a clear, predictable work structure is needed (Sommer et al., 2016; Christiansen et al., 2020). The staff's work structure is strict with clear instructions and guidelines, creating problems related to development of a mutual engagement and a shared repertoire of responses in, for instance, applying hypotheses to operational planning.

The staff's work structure reinforces knowledge boundaries within crisis management, making it difficult to achieve mutual engagement – the ties binding members of a community together, forming a negotiated and shared social unit (Yakhlef, 2018:46; Wenger, 1998). Mutual engagement is challenged by the various practical and cultural logics in the police, as work with planning the operational response clearly demonstrates. Intelligence officers and operative officers were all engaged in planning but applied different logics and perspectives to it. Planning demands collaboration, but our findings show that the work structure limits the possibilities for knowing each other's approach. The work structure is intended to mitigate the stovepipe problem that often arises in crisis management where several disciplines participate (see Schraagen and van de Ven, 2011). However, separating intelligence officers from operational officers in the initial planning, seems to maintain the stovepipe problem and limit the trust needed for a common understanding of acute, major crises.

Intelligence hypotheses are to mitigate bias, a method well known to both investigators and intelligence officers (Chainey 2012, Sunde 2022), yet this was not the case with the operational officers. Collaboration became difficult with the operational officers not understanding the significance of the hypothesis for their planning. This problem of making sense of intelligence appears in other studies (see Belur and Johnson, 2018) into intelligence in the police. This is not made any easier by intelligence officers seeming to think that their role is to present the hypothesis, leaving its

interpretation to the operational officers, while the latter claim to need help in understanding its operational relevance. The logic of the intelligence function, their scope of practice being about analysis and hypotheses predicting the future, tends to clash with a dominant action-oriented and hands-on operational cultural logic (Cockcroft, 2020; Filstad, 2022; Henriksen and Kruke, 2020; James et al., 2017). These contradictory expectations, are found in Cope's (2004:200) research demonstrating a lack of understanding of intelligence analysis amongst operative police officers, generating scepticism towards the intelligence analysts' expertise as "new experts in crime" The lack of substance of the intelligence presented to the operational staff, is likely due to it being "produced at terrific speed", as one informant put it. Syrjä (2019) found similar indications in routine police work. During major crises, the speed of work is tremendous, which may challenge the intelligence work, the nature of which is slower paced (Syrjä, 2019). To accommodate the dominating operational, experience-based knowledge-regime of "fast" actions providing "value quickly", the analysts strived to present "fast-intelligence", limiting the scope for interpretation (Belur and Johnson, 2018) and creation of new knowledge, leaving their reports superficial and lacking substance (Syrjä, 2019:149). This may explain why the operational informants claimed that they didn't see how hypotheses could be relevant to their task, needing them translated. Analysis of the information received should take place in collaboration with operational officers, not as a separate, limited part of the process. The importance of such collaboration is also highlighted by Belur and Johnson (2018:775) who emphasise the importance of an experienced operative police helping the analyst to "[shape] recommendation that would be more suited to tasking".

Overcoming the knowledge boundaries between intelligence and operations has not been addressed. Instead, staffs find themselves in the midst of creating knowledge boundaries and different logics which, the literature argues, hinder collaborative work between different disciplines (Brown et al., 2010; Johannessen, 2018). A common ground of knowledge resulting from the transfer of knowledge between communities is needed to overcome these knowledge barriers (Carlile, 2002, 2004; Wenger, 1998). Trust, as previously discussed, is urgently needed, not simply in the knowledge but also goodwill - that all will work in the best interest of all (Newell et al., 2009).

Lack of trust among the staff impedes development of crisis management as a CoP

Another barrier to collaboration seems to be mistrust among operational officers and managers of the analysis developed and presented as supporting critical decision-making. Intelligence officers experience their recommendation, based on their analysis, are overlooked by operational officers leading to negotiation and discussion in time critical decision-making meetings.

Hildreth and Kimble (2004: Xi) point out that CoPs often evolve out of a common interest. On the other hand, they claim that a CoP, as a formally constituted group, can evolve "because of the relationships that have developed amongst the members." The staff shows few signs of being a CoP sharing common ground, joint enterprise and mutual engagement (Wenger, 1998). Rather, the study indicates that the respective areas of responsibility are challenged by unequal distribution of influence and limited perceived value of the inter-professional collaboration (Strype et al., 2014). The findings also show officers blaming each other and expressing perceived differences in status, critically hindering joint enterprise (Atkins, 2018), instead of professional differences and mutual dependence being acknowledged (Carlie, 2004). According to the intelligence officers, operational

officers who had requested intelligence, then ignored that intelligence. This is described as a common phenomenon within intelligence systems. Hulnick (2006: 967) claims that “the policy officials often know what they want to do even before they receive the estimate (...)”. This is a problem of hierarchical power (Hulnick, 2006), where the operational officers have higher rank and status within crisis management. The analysis indicates that the intelligence officers did not experience the staff having a trust-based relationship where they felt included. Based on the findings, we argue that the intelligence method was not accepted as the main strategy of crisis management among the more operative officers.

One aim of a crisis team should be to develop the team into one coherent social unit, a CoP, experiencing mutual engagement, trust and joint enterprise (Yakhlef, 2018). Such ambition would depend on reducing knowledge boundaries between the various disciplines (Wenger-Trayner and Wenger-Trayner, 2015). To form a CoP, it is not sufficient to share the same job or title (Yakhlef, 2018). The members need to experience personal interaction, which is a requirement for feeling group identity and trust. In our case, the lack of these may mean that the staff does not evolve those things - shared repertoire of actions, a common language or mindset - which would have supported the co-creation of a shared and up to date understanding of the crisis and understanding of what actions to take (Uitedewilling and Waller, 2018).

Learning crisis management as a new practice

Crisis management represents a very small component of the intelligence officers’ remit. It is a rare activity with the highest short-term impact in terms of the potential damage poor decisions may result in (see for instance Hulnick, 2006; Phythian, 2006). Therefore, to avoid conflicting issues activating during the acute response phase of crises, collaboration must be learned, planned and prepared for (Sawalha, 2014:313).

A common practice - combining the practices of the operational and intelligence field, sharing information and combining their knowledge to respond to a critical situation – needs to be developed. However, practical knowledge cannot easily be moved from one context to the other (Beckhy, 2003; Thomassen, 2011) by simply instrumental structures. It involves reducing knowledge boundaries by transferring, translating and transforming knowledge (Carlile, 2002, 2004) to make sense of each profession’s competencies, and role in crisis management. In this, lies trust in their contribution to crisis management. Training, learning, information- and knowledge sharing are needed to take advantage of the different professions’ knowledge and competencies. Explaining the difficulties of transferring and transforming knowledge across organisational subgroups by applying perspectives of CoPs, organisational cultures and knowledge-regimes, the present study touches on an undeveloped research area of crisis management; the need for creating a new practice through a learning process focusing on cultural context and the relational aspects of collaboration (Thomassen, 2011). This can help the crisis management teams to become knowledgeable and accountable in the new context created by major, acute crises.

Learning collaboration through communication, reflection and understanding of each other’s areas of responsibility and tasks is essential to reducing knowledge boundaries and balancing the exploitation and exploration of new knowledge (March, 1991; Thomassen, 2011; Vangen and Huxham, 2009;

Wenger-Trayner and Wenger-Trayner, 2015) of crisis management. What the present study has revealed as knowledge boundaries, must be made a learning focus (Beckhy, 2003; Wenger-Trayner et al., 2015). More concretely, these boundaries can be used to stimulate reflection of the practice of “both sides”. Hence, being engaged in the perspective of others can enhance understanding of what crisis management practice implies: making one’s perspective relevant to the other. Using boundaries as learning assets can challenge the operational and intelligence officers’ professional identity, inviting new ways of thinking and acting around their own knowledge and competence (Filstad et al., 2018).

Concluding remarks

We have investigated the implementation of criminal intelligence in crisis management and demonstrated that operational staff and intelligence staff were not able to collaborate in a proper manner ensuring timely flow of information, nor make intelligence meaningful, or translating the intelligence to support the operational plans and critical decision-making. The knowledge boundaries between operational and intelligence officers represent different logics and sensemaking and, thus, an obstacle to developing a common situational awareness. This is quite problematic in crisis management. Instead, they perceived each other’s competencies as different and contradictory, rather than interdisciplinary and inherently linked. Hence, we suggest that learning how to collaborate and communicate by making the knowledge boundaries learning assets, is pertinent. This could stimulate development of a CoP which has a mutual engagement in planning operational resolutions based on intelligence and other types of information and ensuring a joint enterprise through shared language and procedures. Reducing the knowledge boundaries by translating and transforming intelligence between involved parties to create trust and making sense of each other’s contribution in crisis is essential. This because intelligence cannot be transferred directly from information products to action plan and tactical action, and making sense of intelligence and hypotheses during acute, major crises is time consuming for the operational side. Hence, the need for the acute, major crisis context to result in collaborative work as integration, is evident in our study.

The Norwegian police apply the well-known Intelligence Cycle as a model for intelligence work on a day-to-day basis as well as in crisis management. The Intelligence Cycle is criticised for being non-functioning in daily (police) intelligence work (Hulnick, 2006; Phythian, 2013; Warner, 2013). Following this criticism and based on the present study, we suggest further research on the appropriateness of the Intelligence Cycle in crisis management and to what extent the sequences of the cycle in itself potentially impede collaboration, meaning-making and sense-making of the crisis. Additionally, we suggest further research into how intelligence analysis is used by the staff to make decisions regarding operational planning and response and its effectiveness in crisis management.