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Emergent Learning During Crisis:
A case study of the Arctic Circle border crossing at Storskog in Norway

Riana Steen*
Department of Accounting, Auditing and Business Analytic, BI Norwegian Business School, Stavanger, Norway;

Bernt Rønningsbakk
Department of Strategy and Entrepreneurship, BI Norwegian Business School, Stavanger, Norway

*corresponding author riana.steen@bi.no

Abstract

This explorative study addresses emergent learning related to the refugee crisis in Norway in 2015. We define emergent learning as organisational learning that occurs as a benign by-product of solving immediate problems as they arise. The study is based mainly on secondary data; Media coverage, public evaluation report and other public documentation. The results from empirical research confirm that emergent learning has had a profound influence on how the Storskog crisis in 2015 was managed. Our findings also reveal sub-optimal problem solving, insufficient management capacity and public organisations who were not prepared to respond fast enough.

Keywords: Crisis management; emergent learning; organizational learning

1. Introduction

The drama of millions of refugees moving across the Mediterranean Sea through several European countries in recent years has shown that migration can quickly become an emergency management challenge. The Syrian civil war, which officially began on March 15, 2011, significantly was the prime driver of the influx of migrants. Norway, as well as many other European countries, experienced a high influx of asylum seekers in 2015. A total of 5,461 indiidual asylum seekers came across the Storskog border station from Russia, which historically had experienced around five refugee arrivals a year. The high influx far exceeded the 'country's capacity for receiving the refugees, and the situation was characterised by a high level of uncertainty, chaos and media pressure. The Storskog refugee situation was labelled as a crisis in autumn 2015 when it became unmanageable for the authorities.

"Emergent learning" is the main topic in this study. We define emergent learning as learning derived from problem-solving and decision making activities in response to immediate problems. We contrast that with"planned learning", which refers to any deliberate measure taken to learn, where learning is the focal point.

Considerable streams of research through the last decades have paid attention to how crises induce learning. For instance, Carley and Harrald (1997) argue that organisations learn in large increments – disaster by disaster – rather than gradually over time. Lessons are drawn from experience to improve crisis management through improved contingency planning. Training activities (Boin et al., 2017: 236; Walsh et al., 2015), and improved understanding of causes, consequences and solutions is regarded to be vital for improving crisis preparedness (Moynihan; 2008; Braut & Njå, 2013; Kuipers & Welsh, 2017). Accordingly, there has been substantial attempts on drawing transferable lessons across organisations and domains, such as specific patterns within the mining industry (Quinland, 2014), general patterns across industries (Moura, Beer, Patelli, Lewis, & Knoll, 2017) and attention towards how individual professionals draw lessons from previous disasters (Maslen & Hayes, 2020). There has mostly been a focus on planned learning, learning from past events to improve future crisis preparedness (Albright & Crow, 2015; Clay, Greer & Kendra, 2018), and we argue that there is a research gap concerning emergent learning during a crisis. First, there are strong indications in the literature that emergent learning is essential. Openness and flexibility (Steen & Morsut, 2019) and adaptive capacity (Walker et al., 2002), and similar are traits of learning behaviour which are widely considered to be important by leading scholars in this field (Antonacopoulou & Sheaffer, 2014; Boin, 2017; Elliott & Macpherson, 2010;

Moynihan, 2008; Veil, 2011). Furthermore, scholars have already explicated the significance of emergent learning. Deverell (2010) found that *"public organisations with recent crisis management experience are as likely to produce creativity and learning in the acute phase crisis response as in the crisis aftermath"*. Miner et al. (2001) argue that improvisation creates real-time, short-term learning, which in turn may give birth to long-term organisational learning.

Secondly, the threat rigidity theory (TRH) (Staw et al., 1981) hypotheses a rigid response pattern with constriction of control and restricted information flow when an individual, group or organisation is under pressure. Rigid responses are often functional, but TRH describes a bias towards rigid responses also in situations that require mindful problem solving and learning behaviour. A related *rigidity bias* is recognised in the crisis management literature by, for instance, in Boin et al. (2017:130). Deverell (2010) found a mix of flexible responses, functional and dysfunctional rigid responses in his case study. So, the significance and existence of emergent learning and dysfunctional, rigid responses have been confirmed. Yet, more research is needed to increase our knowledge about how to improve creativity and emergent learning, and how to avoid dysfunctional, rigid responses (Kuipers, van Grieken, & van Asselt, 2018).

In this paper, we investigate emergent learning during the Storskog refugee crisis, with emphasis on mindful problem-solving, and how organisational and inter-organisational factors influenced it.

Down below, we present a framework where we coin emergent learning with mindful processes (Weick et al., 1999). Mindful processes correspond with flexible and creative responses, and less mindful processes lead to rigid and pre-programmed responses. Thus, a topic that is relevant to our study is the relationship between mindful and less mindful processes (Weick et al., 1999; Levinthal & Rerup, 2006), as modes of response pattern. Besides, in line with some of the classical organisational learning studies (Senge, 2010; Argyris, 2002; Argyris & Schön, 1978; March, 1991; March & Simon, 1964), we aim to account for how organisational structure, culture and politics influence learning processes at the group and individual level.

We have collected our empirical data through an extensive search for public documents and media reporting. The various governmental organisations involved produced extensive documentation of how the crisis was handled during and after the crisis. The document analysis revealed how the crisis unfolded and how the various governmental organisations managed their part, through evaluation reports, implementation plans, new law regulations,

instructions, news articles and documentaries. We frame our discussion in the following parts: Refugee arrival prognosis, ID registration, resource allocation, management and coordination, political guidance and legislation - and bureaucratic logics and politics and their effect on post-crisis evaluation.

The analysis reveals several instances of emergent learning and creative problem solving, as well as individual and collective efforts beyond the call of duty from governmental organisations, NGOs, and volunteers, as well as several failed opportunities to learn. Emergent learning had a profound influence on how well the crisis was managed. Our findings suggest that organisations that are not engaged in crisis management on a regular basis will tend to have insufficient information processing capacity and management capacity when a crisis emerges. These are general capabilities and key ingredients in dealing with unanticipated problems that enhance emergent learning. Furthermore, budget focus and "business as usual" objectives can potentially delay a sufficient response to an emerging crisis. At the same line, having the main attention on satisfying the standard procedures rather than dealing with the emergent needs, hamper the capability to learn. Overall, problem-solving during the acute-crisis phase appears to have a mix of solving immediate problems with lasting effect and creating new ones that would surface later. There is a need for more research to better understand the conditions under which mindful decision making and problem-solving thrives and promotes emergent learning in the acute crisis phase – and how an organisation can prepare for that.

The remainder of this paper is organised as follows. In section 2, we present our theoretical approach based on organisational learning studies and crisis management research. Section 3 contains a brief presentation of our case study, section 4 draws attention to the methodology applied in this work, and section 5 holds our analysis of the empirical findings. Section 6 presents our main conclusions and provides recommendations for further research.

2. Emergent learning as mindful problem solving, and factors preventing it

Organisation learning as a concept has an explicit emphasis on creation, retention and transfer of knowledge (Argote, 2012), as well as partial focus on innovation (Ning & Li, 2018). Other scholars link organisational learning with knowledge acquisition (Garvin, 1993), information processing and training (Reason, 1997; Stern, 1997; Weick, 2016). Argyris (2002) defines organisational learning as the detection and correction of errors. Our focus in

this work is in line with the most common definition (Argote, ibid), but with an additional emphasis on problem-solving (Argyris, ibid).

Parts of the academic literature concentrate on different levels of learning. For instance, Wears and Webb (2014) differentiate between situational versus fundamental learning and Popper and Lipshitz (1998) distinguish between structural and cultural learning. We also have a single-, double-, and triple-loop learning (Argyris, 2002; Argyris & Schön, 1978; Rydstedt & Nyman, 2018), as well as explorative and exploitative learning (March, 1991; Roome & Wijen, 2006). A mindful process holds the capacity to a various depth of learning, depending on the situation. The best available solution to a problem will sometimes be to re-use solutions from the existing action repertory. The depth of a mindful process is dependent on the richness of the action repertory (Weick et al., 1999: 37) which correlates with competence, skills and experience. Hence, the emphasis on mindfulness highlights the interaction between learning and existing knowledge, making sense of the situation (Klein, 2011: 126) which enhances critical decision-making (Woods, 2018; Boin & Lodge, 2016).

Levinthal and Rerup (2006: 502) describe mindful behaviour with reference to (Langer, 1989) as: " [..] a state of active awareness characterised by the continual creation and refinement of categories, an openness to new information, and a willingness to view contexts from multiple perspectives". They contrast that with less-mindful behaviour; highly routinised responses which correspond with classical and operant conditioning and involves the use of a highly automated action repertory.

Being mindful is the opposite of starting with a blank sheet. While improvisation creates learning, learned routines shape improvisation (Miner, Bassoff, & Moorman, 2001). Mindful behaviour requires a rich knowledge repertory. Competence is essential, but it goes along with a mindset where you reflect on, and sometimes question, what you already know. Flexible and creative responses (Deverell, 2010) and mindful problem-solving (Klein, 2015; Hollnagel, 2012) require the capability to improvise. The threat-rigidity hypothesis (Staw et al., 1981) suggests a tendency towards rigid and dominant responses in pressurised situations – with centralised decision making, constrained information flow and reliance on old response patterns – also in cases where such responses are dysfunctional. A deliberate effort may have to be made to respond in a mindful fashion under pressure. Furthermore, a mindful process may lead to a dominant response pattern when it is regarded as the most appropriate response.

Crisis management often plays out in a highly politicised landscape where politics and crisis management go hand in hand (Ansell & Boin, 2017; Boin & Lodge, 2016; Boin & Renaud, 2013). Starbuck (2009) discusses the Columbia disasters and shows how Nasa repeated the mistakes they made with Challenger a few years earlier. Although the author was focussing on cognitive aspects, the case description clearly shows a culture and a power structure where the technical experts were overruled by the (administrative) leaders on both occasions - and blamed for the disasters too.

The co-existence of politics and problem-solving means that there sometimes is more at stake than "just" managing the crisis. Those who stay in power tend to apply defensive strategies (Argyris, 1985, 1990) to protect their positions, even in situations where the existing power distribution disturbs the alignment of the organisation with the environment (Pfeffer, 2003; Salancik & Pfeffer, 1977). Argyris and Schön' (1978) had a strong focus on how culturally embedded assumptions (and power distribution) could prevent new ideas, knowledge and viewpoints from surfacing and sustain a rigid ad often dysfunctional response pattern. March and Simon (1964) provided an understanding of limited rationality at the organisational level. Their seminal work display how pre-programmed responses are encoded in the organisational structure, how it tends to reinforce less-mindful behaviour and how it segments the power distribution in the organisation. These attitudes could be related to what Power and Alison (2018) refer to as decision inertia (see Table 1).

Crisis management strategies are often politically driven (Broekema et al., 2019). This will generally lead to the politicisation of learning from a crisis, with counterproductive consequences. There will usually be little to gain politically to use resources to prevent something from happening. As Boin et al., (2020) put it, "governments seem unprepared to deal with crises that do not crystallise in sudden outbursts". When the topics are not considered as priorities by authorities, they are not included on the political agenda. The political agenda illustrates the appetite for change, thus the motivation for learning.

Table 1 holds a summary of some of the learning barriers we have identified among scholars of crisis management and organisational learning.

Table 1 Learning barriers

Categories	Barrier
Power and politics	- Inflexibility, inability to adapt, overemphasis on performance at the expense of learning, reliance on rational decision making, and narrow definitions of what constitutes success conspire to undermine learning in contemporary organisations. A refusal or inability to acknowledge how

	political agendas shape learning creates additional dilemmas. (Kayes, 2015:132) - The political dynamics and the issue of centralisation tendencies: employment of a top-down, command-and-control style (Boin et al. 2017:140) may weaken the ability to improvise, and hence the ability to experience emergent learning. - Challenges related to networks in crisis operations: Operations are often involved with multi-organisational, trans-jurisdictional response networks. They require *lateral coordination*, not centralised, top-down command and control (ibid: 141). - Inadequacy in enquiry commissions or institutional channels through which government learns from a crisis and how they filter information and orient lesson drawing (Renå & Christensen, 2019). - Lack of authoritative and widely accepted explanations of the causes of crises (Boin, McConnell, & Hart, 2010). - Lack of openness, defensive strategies, dysfunctional organisational learning pattern (Argyris & Schön, 1978)
Socio-psychological barriers	- Threat-rigidity theory: Possibility of restrictions in information processing and constriction of control under threat conditions. Attention to dominant or central cues and a tendency toward emitting well-learned or dominant responses (Staw et al., 1981). - Fear: leaders or organisations who fear for their position and negative publicity are unlikely to encourage open debate and investigate what exactly went wrong in the crisis-management process (Boin et al. 2017:130). - Strategic amnesia: manipulation of organisational memory (Boin et al. 2017: 132). - Failure to hear most of the critical information; seeing through pattern matching and sensing the limitations of frameworks (Weick, 2002).
Information processing, decision making, and coordinating	- Changing the organisational structure: Old organisational structures (e.g., hierarchy, routines, procedures, etc.) should be destroyed before new ones based on learned lessons can be implemented (Boin et al. 2017: 133). - A normalisation tendency gives rise to the notion that "it 'won't happen around here." It is then easy to forget the risks (Ibid: 26). - Lack of *"institutional memory*", i.e., having some system to maintain and share the organisational experience available to current decision-makers (Stern, 1997). - Decision inertia: This appears typical in contexts in which: (i) choices are multi-attributable; involve (ii) one-time, irreversible consequences; (iii) take place in dynamic environments in which (iv) anticipated adverse effects are linked not only to action but also to inaction. (Power & Alison, 2018). - Limited information processing capacity (Staw et al., 1981). - Limited action repertory, lack of adequate response plans, lack of competence (derived from the mindfulness discussion) - Limited rationality (March & Simon, 1964)

3. Case study introduction: The Refugee Influx crisis in 2015, Storskog, Norway

In 2015, Norway received 31,145 applications for protection. It was the highest number of asylum applications the country has received in any one year and comparable to the total number of asylum seekers for the years 2012, 2013, and 2014. During the busiest months, a major part of the influx came over the Storskog border station. Traditionally, only a handful of refugees have arrived over Storskog annually. Storskog is Norway' Norway's only Schengen border crossing on land, and the single border crossing point into Russia, and in 2015 that became significant. Figure 1 presents the Arctic Route toward Storskog, the number of asylum applicants across the Storskog border (in yellow), and the number of asylum applicants crossing other Norwegian borders (in green).

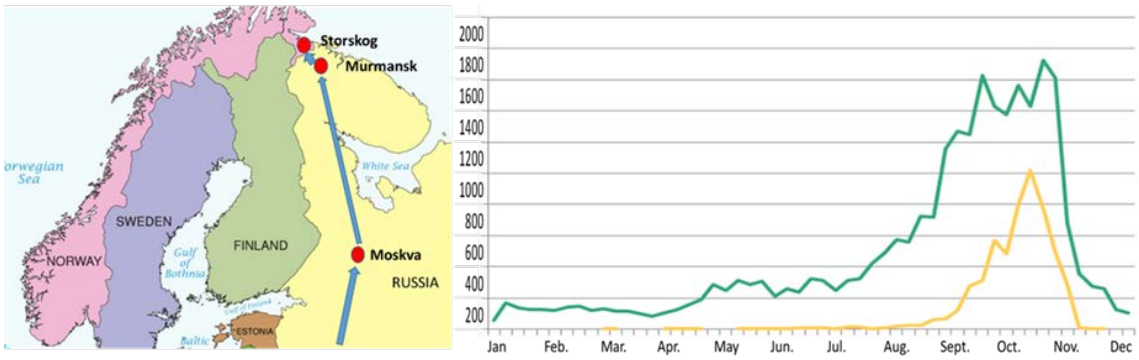

Figure 1: The Arctic Route and the number of asylum seekers in 2015. Source UDI (2016)

In the busiest week of October 2015, more than 1100 refugees crossed the border. By the end of the year, the influx totalled 5,464. Storskog has traditionally processed around five refugee arrivals annually, Kirkenes, the nearest town, has approximately 3,500 inhabitants and South Varanger County has approx. 11,000 inhabitants. This influx exceeded the receipt capacity many times over on all accounts.

Refugees were not allowed to walk across the border, and they ' could not use a car because Norway penalises drivers who transport asylum seekers by car, so they came on bikes, which they left at the border station (Damon & Tuysuz, 2015). A pile of bikes emerged and became an international symbol of the refugee crisis as it appeared up north in Europe in 2015.

Related to the dramatic situation in Syria, there was a high-level political discussion about how many United Nations quota refugees Norway should accept. Eventually, in June 2015, Norway agreed to take in 8,000 refugees under the UN quota system (Østby, 2017). Soon

after, there were rumours on social media and posters along the Arctic route that Norway welcomed refugees. The Arctic route drew considerable attention and started to become a very popular alternative to the old hazardous journey across the Mediterranean Sea. The influx across Storskog ceased at the end of November 2015, when the government found a way to close the border for refugees that came through Russia.

4. Method

This work is a single-case desk study, mainly based on secondary sources. In our analysis, we applied an explanation-based approach that entails *"the use of implicit counter-factual reasoning"* (Stern 1997). We started our work with a comprehensive literature study, using Google Scholar, Emerald, and Science Direct, amongst others. We used related keywords for the main topics in this paper, particularly *"organisational learning"*, *"crises-induced learning"* and *"crisis + learning"*. Our literature study was the bass for developing the terms emergent learning and planned learning as sensitising concepts (Blumer, 1954).

The data collection relied on the triangulation of qualitative approaches to ensure a comprehensive and detailed information about our case. The results from the document analysis and media coverage were integrated with the contributions of the domain experts, through conducting two indebt interviews.

Document analysis

We studied a public various evaluation reports, annual reports, law documents and other public documents of potential relevance (see Table 2).

Table 2 Main data sources

Documents	**References**
Norwegian Directorate of Immigration: Emergency Evaluation Report	(UDI, 2016)
Norwegian Directorate of Immigration: Annual Report 2015	(UDI, 2015)
Norwegian Organisation for Asylum Seekers: Report on refugee crisis	(NOAS, 2019)
Norwegian ID Centre Evaluation Report	(NID, 2016)
The NRK Documentary	(NRK, 2017)
Different online media articles	CNN, The Guardian, etc.

Oxford Report: Research on the changing influx of asylum seekers 2014-2016 – Norway's Response	(Boysen & Viblemo, 2017)

The annual and evaluation reports were essential for this work, as they provided us valuable insights about how Storskog crisis response authorities communicate with different stakeholders, as well as the extent of openness in sharing information. It also revealed many areas of learning opportunities, related to the role of leadership, the contextual narratives and the role of politiin decision-making process during the crisis.

Semi-structured interviews

We conducted two supplemental semi-structured telephone interviews to clarify and verify some our findings from the document analysis, related to arrival prognosis and legislation. The duration of the interviews were approximately 30 minutes. We used an open-ended question- style, while we attempted to link our topics of interest to the interviewee's context.

The informant on the arrival prognosis was an employee in UDI, involved in prognostics work since prior to 2014 and to the time of writing this study. . We asked direct questions regarding the prognostics work, such as: Which types of information applies by UDI to provide the refugee arrival prognosis for 2015? How the information was used to predict the arrival for 2015? Who made the verification of prognosis in UDI? Her reflections and answers are referred in section 5.1.

The informant on the legislation topic was a professor with expertise in territorial law who challenged UDI's immigration law interpretation on The NRK Documentary (NRK, 2017). We made a direct call to him, without sending an email in advance (as for our first interviewee). Generally, we asked for clarifying details related to his statements in the Documentary program. The outcome of this interview was a validation of what was said in the Documentary. This interview did not provide any new insights that has been reflected in the Documentary.

None of the interviews was recorded, as we had some concern about the openness of interviewees while reflecting on the political and leadership issues. Instead, we wrote down

the answers and reflections. We did not find any varieties between the issues in our documents and the reflections from the interviews, so we did not see it necessary to write back to our interviewees and verify our notes.

We analysed all the texts in the documents, looking for situations and problems that had emerged, where a clear match between the situation and the existing response pattern was absent. For example, East Finmark Municipality had a response plan for how to use Fjellhallen as a refugee reception center, based on a scenario of a refugee stream from Russia. The actual situation that occurred was substantially different from what they had prepared for, so this was interpreted as an emergent learning opportunity. Some of the key documents were more focused on the participants' sentiments and future solutions than fact-based analysis of what really had happened. Verifiable facts tend to be more reliable than sentiments (George & Reve, 1982), and are essential to understand the context where opinions are given. Thus, we have been very diligent with getting the facts right. Our empirical findings are not fit to provide a complete presentation of every significant emergent learning opportunity. We have limited the case study to topics where problems, solutions and consequences were documented to a reasonable degree and aimed to avoid speculations where sufficient empirical evidence was missing. Most of the verifiable facts we have used were confirmed in several of these documents listed in Table 2 and the two interviews that took place.

We analysed our empirical findings and discussed them in six distinct areas of concern as follows:

- The arrival prognosis
- ID registration
- Resource allocation
- Management and coordination
- Political guidance and legislation
- Bureaucratic logic and politics and their effect on post-crisis evaluation

In our analysis, we used the learning barriers summarised in Table 1 as our framework for understanding some of the causal effects.

5. Emergent learning during the Storskog refugee crisis

Findings from analysis of our case study are presented below (sub-sections 5.1-5.6). Each sub-sections stands partly on its own feet, and partly interrelated with other topics. The four last topics on the list provide context and explanation to the first two, and we structured our discussion accordingly. There is a progression towards more discussion and analysis as we move down the topic list.

5.1 Norwegian authorities arrival prognosis

The arrival prognosis (prediction) from the Norwegian Directorate of Immigration (UDI) was based mainly on historical data, and UDI anticipated about the same level in 2015 as the year before. In parallel, Frontex (the EU's border control), the Red Cross, UN, and other aid organisations warned that Europe would get an exceptionally high influx of refugees in 2015. As we see in Figure 3, the influx had been high for some time. For instance, between the beginning of 2013 and the end of 2014 there was a 50% increase in asylum applicants (from 400,000 to 600,000).

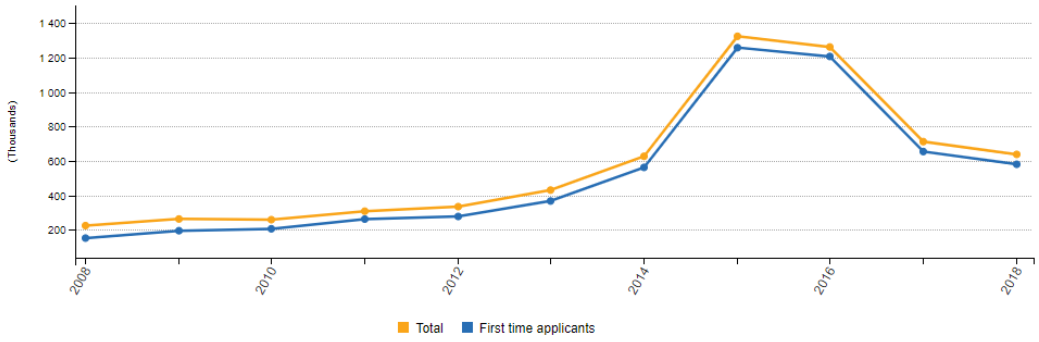

Figure 3 Asylum applications in the EU. Adopted from Eurostat (EC, 2019)

Countries such as Sweden and Germany had granted residence to a very high number (relative to the population), while other countries were more restrictive (Skodo, 2018). Italy and Greece were suffering from the refugee overload and did not get the financial and offloading support they required from the rest of the EU. Hungary, which had received a high number of refugees in the past, literally closed its borders to refugees. Several countries inside the EU instituted provisional national border controls. At the same time, refugees were piling up in Syria and Lebanon, and many were aiming for Europe. The refugee situation became a highly conflicted topic between the EU countries, and Schengen (the EU's common border towards the rest of the world) was under pressure. The traditional route across the

Mediterranean Ocean to Greece or Italy had become even more dangerous than before, and soon the Arctic route appeared as a viable alternative on social media: Fly to Moscow, take a train up north, and get a bike and cycle across to Norway (Jacobsen & Doyle, 2015). This resulted in the influx of asylum seekers through the new refugee route over Storskog for almost 5,000 applicants.

The UDI had previously estimated that 11,000 asylum seekers would come to Norway in 2015 (Lepperød, 2015). By comparison, 11 480 applicants came to Norway in 2014. From an interview with a UDI employee, we know that they considered the situation in Syria, but concluded that the information was not enough to change ther prognosis. We were suspecting that national politics – which was immigration restrictive at the time – could have dominated and limited the UDI's autonomy in this regard. It would not be a surprise if the political context (Table 1) made it difficult for the UDI to make a prognosis that went against the immigration politics of the government at the time. However, our interviewee clearly stated that this was not the case. The prognosis accounted for events that had already occurred and were likely to influence the refugee stream, including political decisions. They did not regard events that might happen later du do, e.g., who is in government.

All the information on the international refugee crisis was visible on the international stage, but the UDI overlooked them. The existing data were not considered significant enough by UDI to adjust estimates. This point addresses an emergent learning opportunity that passed by. They did not prepare or monitor for a potential crisis, and they did not see the prognostics as part of a contingency plan, they prepared for what they regarded to be the most likely outcome. The prognosis was used for budgeting purposes. UDI's funding is vetted in the national parliament, and a change in the prognosis ends up in the parliament. So there is a threshold of certainty before it is changed. The prognostication was business as usual and related to a *"normalisation tendency"* (see Table 1), a notion that a refugee crisis will not happen in Norway.

Increased awareness of a potential refugee crisis in the prognosis work could have increased the preparedness for such an event. Yet, they settled on what they estimated to be the most likely number. A few years later, they changed their prognostics, and now they operate with a low-high interval and a budgetary number somewhere in the middle. Back then, they only had one prognosis – the most likely figure that went into the national budget. The prognosis process was less-mindful with regards to threat-monitoring and reminiscent of

the limited rationality as it described by Simon and March (1964), where information is adjusted and filtered to fit the routine behaviour of the organisation.

Those who made the prognosis did exactly what they were expected to do, which was to provide a most likely scenario based on factual information. The predicting process did not include monitoring for potential threats and worst case scenarios. These findings suggest that monitoring for potential crisis included related emergent learning need to be (part of) a planned activity, especially in bureaucratic organisations where everybody are assigned clearly defined tasks and responsibilities.

5.2 Simplified ID registration

When the influx started, the Russian border station at Storskog lined up refugees and let them cross over to Norway in batches. Documents for the next group of refugees were handed over to Norway for registration and control. As the influx increased, the Russian authorities reduced the time span between the batches, which led to less time to perform receipt and document control on the Norwegian side.

Earlier, in the first half of July, (see Fig. 1), when the influx to the southern part of Norway had increased substantially, the National Police Immigration Service (NPIS) and UDI had made new routines with four different registration procedures with varying degree of thoroughness to achieve best possible tradeoff between speed and completeness at any time. One of them was a minimalistic *"express registration"* procedure, intended for periods with the exceptionally high influx. It soon became widely used also when there was time to do a more thorough registration. Furthermore, according to the NID evaluation report (2016), different and lesser versions of the express registration were practised, even at the same place.

At Storskog, refugees were not registered in UDI's system, and documents they were carrying were not scanned and filed, as they formally should have been. Worksheets were widely used, and ID papers were filed locally. This routine created problems for the document investigators. They did not have electronic access to the documents and were often unable to see the ID documentation, to check whether the refugees had a visa or if they had a residence permit. Moreover, police graduates who were not trained for ID work performed a substantial part of the arrival registration work. Support and guidance from qualified personnel was weak, and the presence of local management was insufficient to manage the situation

properly (NID, 2016, p. 22-23). There was also a shortage of IT equipment, but an even more significant lack of people with the necessary skills to operate UDI's registration system.

Furthermore, there was a general assumption locally, in the Ministry of Justice and Public Security, and the national government, that most of those who arrived would be returned to Russia shortly afterwards. Therefore, they did not prioritice ID verification. The widespread use of express registration with improvised short cuts created a huge workload later on, in 2016 and onwards, when NPIS and UDI completed the ID and registration work.

When we started to work on this paper, we expected that the express registration to be a successful case of emergent learning, but it turned out to be a mixed bag. The creation of the registration regime itself – with four different procedures – constitutes emergent learning as we define it. It was a practical and knowledge-based solution. Some revisions were recommended in the NID evaluation report with regards to future usage. The differentiated registration system was made in collaboration among the governmental bodies involved in registration and ID work. The express registration, however, was over-used, and with significant deviations from the prescription.

UDI's evaluation report and a TV documentary (NRK, 2017) clearly show that those who worked at the front worked in a highly engaging manner, with a motivation that far exceeded normal expectations. This behaviour had elements of *social facilitation and co-action effects* (Zajonc, 1965), in terms of showing solidarity, when *"increased task performance comes about by the mere presence of others doing the same task."* Such a situation will, however, tend to promote a dominant and rigid response (Table 1, the thread-rigidity theory) as opposed to creative and learning behaviour. A lack of ID competence and weak management stand out as additional causes of limited ability to adapt and implement the ID registration properly. The crisis itself might be considered a significant reason as well, regarding time pressure, the high degree of uncertainty and shortage of qualified people stretched the available resources beyond their limits. The ID registration preparation and implementation case nevertheless suggest that pressure and resource deficiencies during the acute-crisis phase constrained emergent learning (Staw et al., 1981) at the front line, but not necessarily in the back office.

5.3 Resource allocation

The National Police Directorate (POD) allocated additional personnel to East-Finnmark twice - in September and October. When POD sent 24 police officers late October, the border

control was at the brink of breaking down (NRK, 2017). The workload had been too high for several weeks, and the involved officers were exhausted. The refugee stream continued to rise after this, and the staffing kept lagging behind. According to the evaluation report from the NID (2015, p.16): *"[..]the national police should have added resources to deal with the ever-increasing arrivals at an earlier stage. Lack of personnel resulted in deficient registrations. Several leaders in some of the agencies have been used for other more operational tasks than management, and this had implications for the registration work."*

There is consensus in the various evaluation reports, including POD's own, that their response to the situation was inadequate. They had most of their attention on the influx in the southern parts of Norway, which also was extraordinary. It also appears that they failed to recognise the local conditions in which a small police force was spread over a large area (Forland, 2016). Furthermore, until the influx became apparent, their initial focus was on reaching their target number for the forced return of refugees. There was a conflict between POD's objectives and the resource requirements due to the Storskog influx. Management by objectives, inability to adapt, and overemphasis on (measured) performance (Table 1) led in this case to rigidity and late adaption.

While POD stands out in the empirical material in this regard, they were not the only central governmental organisation who were lagging behind the situation with their resource allocation. UDI responded late too. The general picture is that all central authorities were in arrears for as long as the crisis was expanding.

The late resource allocation inhibited emergent learning related to the ID work, with more than unnecessary shortage of management resources and ID competence in East Finmark.

The absent focus on a potential worst-case scenario in UDI’s prognosis work as well as other governmental organisations likely contributed to how rigid the situation was managed until the Storskog refugee situation was labelled as a crisis. This had a mobilising effect, as it gave access to more resources for involved organisations. The mobilising effect of marking a situation as a crisis was explicated in the UDI evaluation as a key learning point.

5.4 Management and coordination

Several governmental and non-governmental organisations were involved in the Storskog refugee crisis. These included the Norwegian Directorate of Immigration (UDI), the Norwegian Police Directorate (POD), the National Police Immigration Service (NPIS), the Ministry of Justice and Public Security (MJ), the Norwegian ID Center (NID), and the

Norwegian Directorate for Civil Protection (DSB). MJ had the governing authority, and UDI acted as the central executive administrative agency in the area of immigration and refugees in Norway. The other organisations had various roles and duties during the Storskog crisis, and the need for coordination was high.

The evaluation reports describe substantial management-related challenges, especially at the beginning of the acute phase. These include challenges in inter and intra-organizational coordination, management presence, decision implementation, and information distribution. The following are some comments from the UDI evaluation report (2015):

- Access to information was difficult when decisions were made in several places without being written or systematically reported (p. 26).
- The ministry gave the UDI clear, and often oral, authorisations to implement the actions UDI assessed as necessary. The lack of written descriptions created uncertainty in the UDI organisation (p.35).
- UDI leaders have expressed concern that legislation had been violated on several occasions, including the Working Environment Act and public procurement law, and that UDI went beyond its budgetary powers. This created uncertainty related to some of the decisions that was made (Ibid).

The last comment mentioned above is a case where the local authorities seem to have had less than an ideal influence on resource allocation and priorities at the national level. A potential emergent learning point could have been to recognise the local authorities' needs for enhanced autonomy and influence in central decision-making processes. This is what we have in Table 1 as the political dynamics as well as a centralised threat-rigidity response.

The evaluation report from NOAS pointed to a lack of a crisis communication advisor as a necessary resource: "Media inquiries, reporting requirements and intelligence work also used so much of the present management capacity in the district and especially the Storskog border crossing that the daily management of the staff could not be prioritised in the daily work. In the early autumn, the East Finnmark Police district did not have a communication advisor, and the situation did not make it easier." (NOAS: 7)

A common reflection in all our studied documents is that the influx was extremely demanding and that available resources were inadequate for dealing with the intense situation. UDI, the leading authority dealing with asylum procedures, failed to anticipate the high influx as it occurred and was consequently ill-prepared. Resources in terms of, human, physical, and

financial capital were scarce concerning tasks such as receiving asylum seekers, registering IDs, providing accommodation, conducting procurement, recording observations, reporting, preparing health care, responding to media inquiries. As the influx grew, the scope of all these activities increased considerably. To deal with the situation, UDI changed its priorities. Budget cuts arising earlier from the government's efficiency reform were taken elsewhere in the organisation than from Storskog Crisis Management (UDI, 2015: 13). NPIS did not have the capacity to continuously register new arrivals, and there was a need to accommodate applicants prior to registration. The staff complement kept lagging since the refugee stream, and the workload continued to increase.

At the same time, the transit reception areas were quickly filled, and it became difficult to perform the necessary tasks (UDI, 2015). Sør-Varanger local council contacted the UDI on September 4 to find a solution. Shortly after, Sør-Varanger Municipality prepared and operated Fjellhallen as a transit reception centre (see the following photos) as an assignment for UDI. Fjellhallen is a sports hall located close to the heart of the town of Kirkenes. The assignment implied that a maximum number of 150 asylum seekers could stay at Fjellhallen at a time, for a maximum residence period of four days. During that time, the NPIS handled registrations and conducted interviews with asylum seekers, who received general information and received a health check (the UDI's formal standard).

Fjellhallen transit reception (Photo: Vidar Ruud/NTB Scanpix) and inside the reception (Photo: Sidsel Vik /NRK)

The operation of Fjellhallen became a conflicted topic. According to the UDI's report (2016: 67): "Regional office North experienced major collaboration problems with the

municipality according to the regional office North, which could not follow the usual procedures for receiving operations." The contract between the two parties was originally from September 24 2015 until March 31 2016, but UDI replaced Fjellhallen with a new transit centre, Arrival Finnmark, on November 11 2015. A similar new centre was established in southern Norway. The purpose of both was to increase receipt capacity and streamline the receipt process with registration and initial health check at the same place. The new arrangements allowed for closer cooperation between the authorities, since the police, health authorities, and UDI representatives were present at the same centre. (UDI, 2015), but Arrival Finmark was also regarded as the solution to the problems they experienced with Fjellhallen.

The collaboration problems related to Fjellhallen and the early closing led to a financial dispute between Sør-Varanger Municipality and the UDI. It evolved into a judicial mediation in 2017 and received substantial local and state media attention.

Back in 1989, the local authorities had prepared a contingency plan based on an influx scenario of Russian migrants, using Fjellhallen. They partly used this emergency plan to prepare Fjellhallen as a refugee reception centre. The collaboration problems indicate that the two parties had different sets of assumptions of how the operations should be commenced – and that this did not surface before they reached an agreement. Furthermore, when an old plan is used to solve an emerging problem, the standards and procedures must be examined and settled with a mindful approach, to ensure that the involved parties have a common understanding of the operational requirements.

The evaluations combined show other collaborative shortcomings between UDI and the other governmental organisations, especially at the early stages. UDI Managers who were involved at the front became occupied with operational tasks instead of coordination and management (NID, 2016), and the allocated management resources were insufficient to handle the situation as well. The response was as predicted by the thread-rigidity hypothesis (Table 1) with restricted information, dominant response (the municipality) and attempted constricted control (UDI).

As highlighted in the NID evaluation, those who worked at the front were a mix of skilled professionals (managers and others) and unskilled workers (police recruits with neither training nor education in ID work). The former would have benefited from more autonomy on local matters and more influence over decisions relating to the allocation of national resources. The latter needed more supervision and instruction, as they did not have the

qualifications to manage their tasks themselves. We will briefly address the implications of this finding in our final remark.

Management presence locally and local coordination improved gradually after the UDI established coordination meetings, and these served their purpose. The UDI's evaluation report recommended these meetings to be included in UDIs action repertory for the future. Here we see how emergent learning led to long-term organisational learning.

Problems that were resolved to a far lesser degree during the acute-crisis phase included internal coordination regarding decisions inside the UDI and an unclear division of responsibility towards the health authorities as well as weak strategic collaboration with the NPIS. A general picture that emerges is that available management resources were a severe bottleneck during this crisis. This deficit limited governmental organisations' emergent learning abilities. A potential learning point here is that lack of management capacity in a situation with high demands for coordination, supervision and other management-related activities will tend to lead to rigid response with restricted information processing and dominant response, but perhaps more lack than constriction of control.

We also found comments on how a top-down command and control style (Table 1) created frustration in the operational management of the crisis. For instance, POD expressed frustration with how the MJ had managed the operations (Forland, 2016), and some UDI employees were apparently "unprepared" when they became micro-managed by the MJ, but we found no suggestion within our document studies whether this approach was beneficial or harmful. On a general note, the power balance between the local level and national level in the UDI and POD, and the lack of local influence on central decisions were not thoroughly debated. Inter-organisational politics was present as an invisible hand in our case. The consequences of politics and power usage appeared as a result of the inadequacy of enquiry commissions (Table 1), and the response from MJ is in line with the predictions in the threat-rigidity hypothesis.

Several of the challenges discussed in this section have relevance to crisis management in general, but all of them were also emergent learning opportunities. The management competence capacity and priorities was shown to have an influence on how the challenges were resolved and the lessons learned. A mindful, problem-solving approach is likely to produce more emergent lessons than a dominant response approach, and our case material reveals a mix of the two.

5.5 Political guidance and legislation

The high influx stopped 30th November (NID, 2016). The new approach was first brought to the authorities' attention by a law professor with expertise in territorial matters. In the NRK documentary Brennpunkt (NRK, 2017) he appeared on TV quoting the law. He claimed that the Norwegian Immigration Act allowed applications to be processed at the border as well as inside the country. This was disputed by the MJ's department secretary, who had consulted the juridical expertise in the MJ (see Decision inertia, Table 1). However, the government soon turned around and changed the practice (Abelsen & Flyum, 2017). The Immigration Act was revised. A safeguard was removed so that refugees could be returned to Russia, even though Russian authorities would potentially likely dismiss residence applications. Furthermore, the MJ was given power of attorney to instruct in single cases and on legal interpretation. The law revision opened the dismissal of most of the refugees' applications at the border and without considering the merit of their application. It enabled MJ to enforce a strict practice (NOAS, 2019). Shortly after, *"The Ministry issued instructions to the immigration authorities on November 2015 stating that asylum seekers who had been in Russia before coming to Norway should, in general, be denied examination of the merits of their applications."* (UDI, 2015, p.23)

The changes were announced in the Russian media and on social media through an information campaign (UDI, 2015:12). The refugee stream at Storskog halted utterly as soon as the two instructions were implemented. Statistics show that the number of asylum seekers to Norway in the first quarter of 2016 decreased by 95 percent. The new practice received criticism from United Nations High Commissioner for Refugees and was described by NOAS (2019, p 5) as a *"de facto abolishment of the institute of asylum on Norway's border with Russia"*.

A few days before the two instructions were implemented, under the most hectic period, in November, UDI instructed the locally present police to start returning refugees who had been denied residence. During 48 hours, refugees were walking back and forth between the Norwegian and the Russian border station, not being allowed access to either country. The above-mentioned professor also claimed in public that Norway had a legally binding agreement with Russia that clearly implied these refugees could not be returned. The police knew that, as well. Over two days MJ created an embarrassing moment for the nation and a really bad situation for a number of refugees.

5.6 Bureaucratic logics and politics and their effect on post-crisis evaluation

In this section, we look into the evaluation reports to understand how evaluators used various perspectives to interpret experiences during crises, and how these findings are related to emergent learning, including organisations' emergent learning ability. The UDI (2016) evaluation report was based on document studies and group interviews that led to a long list of findings, mainly perceived problems, such as (p. 66): *"The respondents from the Region and Reception Department thought it was unfortunate that the department was not represented by a manager on short notice before November 17. All the actors have responded that the presence of a local leader was positive."* A corresponding recommendation is found on p. 70:

"UDI representatives at sufficient managerial level with sufficient decision authority must be present during collaboration with external collaborating partners such as the police."

The report included more than 130 recommended actions. The report was balanced in the sense that it gave due recognition to the large group of employees who made extraordinary efforts to manage the crisis as well as pointed out problems and shortcomings. The authors do not know if or how the recommended actions were implemented, as there are no complimentary public documents relating to the implementation of these recommendations. However, many of them were less than straightforward solutions, including the one referred to above. The transition from perceived problems to recommendations was not always as direct as it was here, but there were generally very little analysis included.

Overall, the UDI evaluation report was on the less-mindful side of the scale. It had a one-dimensional approach with an emphasis on bureaucratic patching, and there was very little analysis of causes and effects. In addition to the above, the report did not address the arrival prognosis, how it was made and its influence on the preparedness. The response from our UDI interviewee indicates that they did not even regard the prognosis work as part of the crisis management. A lack of analysis on this point in the evaluation report forsake the opportunity to generate questions and find options that could make a difference in responding to future crises – and perhaps to react more proactively if signs of a similar event would appear in the future.

Furthermore, UDI representatives' dissatisfaction with the hands-on leadership of the Ministry of Justice and Public Security (MJ) implemented in East-Finnmark was carefully worded (p. 89): *"The centralised governance we experienced from the*

department (MJ, author's note) was perhaps something new, but this is likely to happen again. There are strong indications that not everyone in the UDI had a sufficient of understanding of their role or the situation or was aware that the Ministry's control intervened in the room for action among employees at all levels. Better communication internally could have helped create a better acceptance of the situation and perhaps limited the feeling of not being heard or included."

The phrasing above, in addition to knowing that UDI personnel were instructed in how to interpret the Immigration Act, suggesting that any critique of the MJ was perceived to be off limits and not subject to discussion. We can think of this as an issue of inadequacy in enquiry commissions (Table 1). As Renå and Christensen (2019) put it, "institutions through which government processes crisis experiences are far from neutral mechanisms for learning; rather, they filter information in particular ways and orient lesson drawing in a specific direction."

The evaluation nevertheless touched upon on some topics that were likely to influence emergent learning and the ability to learn under crisis: Improved processes such as coordination, decision making, information sharing internally, coordination with collaborating governmental organisations, and the need to increase management capacity.

The POD evaluation report received extensive media coverage (see, e.g. Forland, 2016) just before the planned release. They expressed frustration with how the MJ had handled the influx, admitted that they had responded too late and that they had lacked sufficient knowledge about the local conditions. The release of the report itself was first delayed, and later withheld from the public on a permanent basis (NOAS, 2015, p 46)

The evaluation report from the Norwegian ID centre (NID 2016) correlated with the findings in the UDI evaluation report and the main body of available information. In addition, it stood out as a more mindful evaluation than the other reports we have examined. First, it contained detailed empirical descriptions of how the ID work was done and the consequences - and not just perceived problems. Second, it had a more multi-dimensional approach than the UDI evaluation. In addition to suggesting bureaucratic fixes, it addressed IT-related difficulties and the need for competence development at an individual level. A general recommendation about creating redundancy of competence was given: "*It should be considered to train designated employees in other tasks than those performed daily*". It was specifically suggested to include ID-work teaching in the general police.

Redundancy of competence may be an essential ingredient for organisations' crisis preparedness, but more so with regards to management competence than other more task-specific competences.

Overall, there was very little to no emphasis on problem-solving ability and emergent learning ability in the evaluation reports. Improved management capacity and management skills will likely benefit emergent learning, but the evaluation reports combined were more oriented towards expanding and improving the action repertory than on how to use the repertory in a more mindful way when unanticipated problems emerge.

6. Final remarks

Any crisis is a time of intense difficulties and challenges. Not surprisingly, the Storskog crisis was managed with insufficient resources in terms of headcount, ID competence and other task-specific competences, as well as a severe shortage of management resources. Extraordinary efforts were made by a large number of people from the public sector, NGOs, and the private sector to take care of the arriving refugees. However, while a pressurised situation with people in need brings out the best efforts among those who help, our analysis revealed that it caused chaos at the front line.

UDIs arrival prognosis appears to have not been regarded as a part of a crisis response preparedness. Furthermore, the late responses from POD, UDI and the other governmental organisations suggest that budgets and targets that were set for a normal situation, delayed the response to the crisis. We see a dominant response here, which is more governed by limited bureaucratic rationality (March and Simon 1964) than by a perceived threat. The situation that appeared at the front included a lot of less-mindful and rigid responding to an overwhelming refugee influx. However, in between all the rigidity, there were examples of more calm and mindful problem solving, such as the ID registration system that was developed and the gradual improvements in management and inter-organisational coordination.

The evaluation reports we examined mostly applied a bureaucratic approach, with an emphasis on formal institutions, such as division of responsibilities, coordination mechanisms, information channels, preparedness plans and so forth. A couple of things we miss in the evaluations are analysis of the rapidity of response and reflection of adaptive capacity. For instance, addressing how an institution might be prepared to respond quickly to

a crisis while its daily operation is based on goals and budgets, which are set for a normal situation?

Emergent learning and the problem-solving ability was hardly discussed in the evaluation reports. Too much bureaucracy may lead to paralysis when unanticipated problems emerge. As Klein (2011: 36-42) states, highly prescribed responses tend to leave less room for decentralised influence, mindful decision making and improvisation. Therefore, emergent learning should be one of the focus areas in post-crisis evaluations.

Many of the emergent learning points we have addressed were more or less successful instances of emergent solutions that were institutionalised on the spur of the moment and came as a response to urgent challenges. Such interventions included instituting a differentiated arrival registering system, implementing coordination meetings in East-Varanger, legal and procedural changes that eventually enabled the MJ to bring the influx to a full stop, and the conflicted collaboration between Sør-Varanger Municipality and the UDI over the Fjellhallen arrival centre. None of these institutionalisation processes was systematically evaluated in the evaluation reports. Yet how these processes evolved had a profound impact on how well the crisis was managed.

Our findings confirm that a crisis tends to produce overwhelming requirements with regards to information processing. In the thread-rigidity theory, it is attributed to information overflow and restriction of information. Bureaucratic organisations who are engaged in crisis management from time to time, need to have a redundancy of information processing capacity. This will enhance the capacity to coordinate joint-actions, solve problems and supervise people who are recruited to assist but does not have the required competence. In addition to a rich response repertory, these organisations need to have a reserve of people with management skills, even though they do not manage inheir regular jobs. To facilitate emergent learning and mindful problem solving during a crisis, those who manage operations need more better management competence and abilities than they use in their daily job.

Another contribution of this study is to provide nuance to the constriction of control vs decentralisation theme, which is central in crisis management research. The tendency is constriction of control, but decentralisation is widely regarded in the literature as the superior alternative. The analysis of the ID work suggests that the optimal solution can be a mix of these two elements. Skilled orkers will often benefit from more autonomy, while less-skilled workers may do better job with detailed instructions and close supervision.

To recapitulate from the introduction, we conclude that emergent learning based on improvisation and adaptability to difficult circumstances, as well as individual and collective efforts beyond the call of duty from governmental organisations, NGOs, and volunteers had a profound influence on how well the Storskog crisis in 2015 was managed. However, our findings also reveal sub-optimal problem solving, insufficient management capacity and public organisations who were not prepared to respond with the speed that the situation required. Overall, problem-solving during the acute-crisis phase appears to have been a mix of solving immediate problems with lasting effect and creating new ones that would surface later. There is a need for more research to better understand the conditions under which mindful decision making and problem-solving thrives and promotes emergent learning in the acute crisis phase – and how an organisation can prepare for that. Accordingly, we believe that practictioners of crisis management will benefit from enhancing their improvised problem-solving and emergent learning ability in their training and preparation activities.

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