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## Abstract

Crises are characterised by urgency and disorder, with the ordering practices of crisis management teams constituting key features of the response. In the Swedish refugee crisis that began in autumn 2015, numbers became a key analytic tool to comprehend, monitor and communicate the flow of people arriving in the south of the country. This study draws on theory from social studies of quantification, critical accounting and governing practices. It adopts a qualitative approach and investigates calculative practices in three local crisis teams in Malmö, Sweden. These knowledge producing practices are understood as connected to processes of problematisation, with potential implications that are not always considered. Quantification, although seemingly limited to the neutral, objective application of numbers, can have important political consequences, playing a role in how scarce societal resources are distributed during and after a crisis, as well as before the next one.

## Introduction

In 2015, a large number of refugees<sup>1</sup> sought their way north through Europe. This event has come to be known as the ‘refugee crisis’, labelled by the mass media and government agencies as a societal crisis. Most of those who reached Sweden arrived in Skåne, the southernmost part of the country, where local authorities were confronted with an unexpected number of individuals. Several responded by activating formal procedures, such as establishing crisis management and coordination functions, as required under Swedish legislation and government policy. This article draws on qualitative data that describes local crisis management practices during the autumn of 2015 from three crisis response teams that were set up in Malmö, the largest city in Skåne: the Swedish Migration Agency, the City of Malmö, and the Swedish Police Authority.

The purpose of this analysis is to shed light upon a central feature of knowledge production practices within these crisis management teams: the collection, compilation and interpretation of numbers. It is about counting, and about using numbers to comprehend, order and control an unexpected and uncertain situation, and as a way to measure flows and volumes. There is an inherent power in numbers, due to their ordering capacity (Cohen, 1999; Porter, 1996; Rose, 1991). At the same time, numbers can depoliticise knowledge, as the neutral process of counting and calculating objectifies and quantifies otherwise subjective problems (van Ostaïjen & Scholten, 2017). Power (2004) addresses the inherent reductionism in counting processes, and the close relationship between measuring and projects that seek to control.

As Rosenthal, ‘t Hart and Kouzmin (1991) point out, in critical circumstances the lines between political and administrative roles and activities tend to become blurred. In the migration context, Collyer and King (2016) have noted how the ways large-scale movements of people are measured, categorised

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and understood makes an important contribution to the narration of a crisis, which, in turn, is highly political. This process begins with the choice of information to be measured.

In a crisis, decisions are made under time pressure and there may be a lack of reliable information. Calculations and assessment of consequences must occur almost immediately, and are often based on some kind of series of collected data (Sargiacomo, 2015). Along with the potential errors in hasty data collection, this can make aggregate numbers arbitrary and uncertain while, at the same time, they may play a key role in the allocation of scarce resources (Mennicken & Espeland, 2019). Therefore, it is important to understand how numbers are produced and aggregated during a crisis and to ask questions regarding how these *calculative practices* (Miller & Rose, 2008) produce and reproduce ideas about society. This is highly relevant since the numbers are connected to particular problem representations, *problematizations* (Rose, 2000; Bacchi & Goodwin, 2016), with consequences for governing and power relations.

Consequently, the research question that is the focus of this paper is:

*How do calculative practices in crisis management teams relate to problematisation processes, and what are the potential implications?*

## Theoretical Framework

In the chaos of crisis, societal order needs to be restored – and to manage a crisis is to establish order (Narby, 2014). Paying attention to what people do to create and sustain order is a key analytic approach to understanding governing. However, while it is one thing to study order in the layout of formal organisation charts and recommended procedures, it is another to study ordering practices. As Bowker and Star (1999, p. 24) put it, “As we know from studies of work of all sorts, people do not do the ideal job, but the doable job”. In a crisis, when work is often carried out under significant time constraints, the limits of what is considered doable might be narrow.

The analysis presented in this paper rests on the work of theorists within the Foucauldian tradition who are concerned with *how* government agencies and political institutions engage in governing activities. A central idea is that modern, liberal democratic societies need to be analysed with a specific lens, focusing on local practices and means of governing (Miller & Rose, 2008). Central to this train of thought is Foucault’s work on the relationship between power and knowledge, and his ideas regarding how power is distributed rather than centralised in societal institutions (ibid).

### Quantification and calculative practices

The analytical emphasis on numbers in this study draws upon studies of quantification and critical accounting (Bartl, Papilloud & Terracher-Lipinsk, 2019; Espeland & Stevens, 2008; Mennicken & Espeland, 2019; Porter, 1996; Rose, 1991; Sargiacomo, 2015). While numbers can be perceived as simple, rational and objective, they carry inherent meaning. They reflect the interests, concerns, expectations and beliefs of the officials who are responsible for carrying out the related work practices. Their subjective views are integral to the

choice of what to count, what state of affairs the numerical data is assumed to measure, and the framing of statistical analyses (Rose, 1991). Typically, numbers are considered compelling and useful for solving problems, and they are granted credibility and authority in knowledge production and communication (Espeland & Stevens, 2008).

Processes of quantification can reduce complexity, and numbers have an inherent “ordering capacity” (Rose, 1991, p. 679). Quantification turns qualities into quantities via processes of *commensuration* - when different objects are measured with a common metric. This creates specific relationships among objects and can transform any differences into a quantity (Espeland & Stevens, 2008). In this way, communicating a numerical variable can, in principle, reduce a plurality of meanings to a single number, and quantification can overcome any linguistic ambiguity (Bartl, 2019). When officials engage in calculative practices (Miller & Rose, 2008) they are constrained by the rules and routines of their organisation, which externalises the individual from their practice. This endows their knowledge with a specific kind of objectivity, and impersonality, rather than status or experience, becomes valued and desirable (Rose, 1991). In addition, this kind of numerical knowledge is very difficult to rework for those receiving it, like journalists or politicians. Porter (1996) refers to it as “black boxes, scarcely vulnerable to challenge except in a limited way by insiders” (p. 42).

### Numbers and problematisations

This study investigates official knowledge production during a crisis as a process of *problematisation* (Bacchi & Goodwin, 2016; Rose, 1991), which can be traced through working practices and policies. This focus acknowledges that contextual and historical circumstances will be constitutive of how a problem is understood and articulated, and influence the concepts, explanations, arguments, and theories that are used when describing something, or someone, as a problem (Bacchi & Goodwin, 2016; Rose, 2000). When defined, a problematisation can continue to shape perceptions, judgements, and particular forms of authority, as well as the physical world (Rose, 2000).

When applied, numbers are always, explicitly or implicitly, indicators of something. Numerical targets may be set in positive or negative terms (Bartl et al., 2019) and quantities can be linked to “fictional expectations” (*ibid*, p. 16.; see also Beckert and Bronk, 2019). These are narrative descriptions of the future, presented with the numbers. While their advocates might present these as certain outcomes, essentially they are only claims to what lay ahead. Numbers contribute to making such claims credible but at the same time they are very often retrospective in that historical trends are expected to continue (Bartl et al., 2019). Analysis practices for estimates and prognoses, for example in the domain of risk management (Power, 2004), rely heavily on narrative scenarios or threat assessments, in which “numbers can be utilized in matters of probability, to convey a notion of risk” (Rose, 1991, p. 679). Such reports articulate and make visible government problematisations of subjects, objects, and places (Bacchi & Goodwin, 2016; Rose, 1991) and they can become a powerful tool in shaping the political discourse and arguments about which measures are deemed necessary during a crisis.

## Crisis management teams as local centres of power-knowledge

The present analysis conceptualises crisis management as a particular form of governing, in which government makes interventions in the attempts to manage situations and people (Miller & Rose, 2008) by organising and working as prescribed by legislation and government policies, in this case in the specific Swedish context. With this theoretical lens, the crisis management team can be seen as a Foucauldian “local centre of power-knowledge” (Bacchi & Goodwin, 2016, p. 31) which is set up to provide administrative support for response management and supply other actors with information.

As part of this task, crisis management teams rely on producing and communicating a situational picture (e.g., Copeland, 2008; Spak, 2017; Wolbers & Boersma, 2013), which are constructed to summarise and report items such as numbers, assessments, and activities, sustained by local, regional and national governments in crisis. The situational pictures, and the practices related to them, are likely to shape, guide, and perhaps constrain emergency responses (Sargiacomo, 2015), by providing rationalities for action (Miller & Rose, 2008).

## Materials and Methods

This analysis draws upon qualitative data collected during interviews with 20 respondents from three authorities who set up local crisis management teams in Malmö (Skåne region): the City of Malmö<sup>2</sup>, the Swedish Migration Agency<sup>3</sup> and the Swedish Police Authority<sup>4</sup>. These authorities were engaged in local response operations during the autumn of 2015, as Malmö was the main entry point for refugees headed for Scandinavia. Together, they represent a range of duties, objectives, and tasks which were carried out at the operational level of response. The analysis focuses on the ‘refugee crisis’, which began in August 2015 and ended in early January 2016, a time-period that was defined by respondents themselves.

Semi-structured interviews (Bryman, 2012) were run over the course of a year (2018–2019) and lasted 66–122 minutes. The interview guide included questions about roles, tasks, goals, and the overall mission, along with organisational structures and procedures (see DeVault and McCoy, 2012). The guide aimed to open up opportunities for a narrative analytical approach (Esin et al., 2014; Riessman, 2014). The objective was to analyse the story constructed by the respondent and their role in it, and the role of the local context, along with broader social discourses. Although there is an inherent risk in paying too much attention to the overall narrative (Boje et al., 1999), these personal accounts can capture authoritative knowledge and the process acknowledges that multiple stories make up organisational life (Ashcraft & Mumby, 2004).

However, it should be noted that interviewees had little, if any, face-to-face contact with the people who arrived in Malmö. Many were representatives of their respective organisation, some were in a senior managerial position, which could have created an emphasis on specific topics consistent with a specific agenda (Jacobsson & Åkerström, 2013) or an interest or stake in a particular narrative (Potter, 1996). It should also be acknowledged that the author of the present article, in this qualitative approach, was co-complicit in how respondents adjusted and framed their accounts of the crisis (Boje et al., 1999).

The three general themes in the interview guide were *direction* (goals, tasks and, planning), *collaboration* (sharing information and reaching agreements), and *leadership*. Data were thematically organised using NVivo 12 software, which led to data being re-coded into new themes, one of which was *numbers*. This paper is based on data relating to this theme, as one main finding in the material, mutual for all three teams; the accounts of an extensive use of numbers for comprehending and monitoring what was happening and communicating about the situation. This focus on numbers is used as an analytical strategy, by “[investigating] their practical uses, describing how they become embedded in networks of people who make and use them, and the techniques and routines that facilitate this embedding” (Espeland & Stevens, 2008, p. 421).

In the presentation of the analysis in this paper (see the next section), calculative practices are presented for each agency separately. It is important to note that the aim has not been to emphasise differences or present a comparative analysis. Instead, the approach seeks to highlight how all three authorities made use of these practices in their efforts to manage the crisis.

## Numbers in Local Crisis Response Management

*We were only supposed to put them through the system. We had nothing to do with why there was an incoming flow. Instead, we were just supposed to make the flow work. We were not supposed to work against it [...] we were put in front of an endless stream of people. (P1)*

There is no fixed moment in time that clearly marks the beginning of the refugee crisis. For some respondents, the deviation from normalcy began months, or even years, before autumn 2015. However, the sense of urgency among local authorities, which is a key feature of the notion of a crisis, and the subsequent formation of crisis teams, was largely motivated by news reports showing images of refugees walking along highways in Germany and Denmark, towards Sweden, in early September. Some accounts describe these images as a signal that great numbers of people were coming, who needed help. For others, they signalled the breakdown of European border control systems; the flow of people, which was drawing closer, was going “to get out of control” (P5).

The flow metaphor is central in accounts of the crisis, and many of the problems encountered by authorities are related to this notion of a flow. It is central to how respondents have described the intensity of their experience, how they gradually came to feel overwhelmed, the perception of it lasting for a long time, and perhaps never end. They described the lack of material resources as a problem in relation to the flow, creating bottlenecks, causing accumulation and queues, disrupting the flow. In a sense, the flow became the object to be managed (cf. Bacchi & Goodwin, 2016) and numbers became a way to make the flow manageable.

### The calculative practices of the Migration Agency

The Swedish Migration Agency is a national authority. It is mandated to uphold the democratic principles of legal certainty, the individual’s right to equal

treatment, and the fundamental human right to seek asylum. Everyday work is characterised by bureaucratic procedures for reviewing applications for asylum, residence permits, and citizenship. In late summer 2015, the office in Malmö organised a crisis team, for the first time. This way of working was initially unfamiliar to team members.

*We had to learn a completely new way of working, how a crisis team functions. A crisis team, the Migration Agency isn't used to that, we've never had one before. (M3)*

The Agency's core mission in the response was to organise the registration and accommodation of asylum seekers, which is no different from everyday work. They dealt with operational issues related to the unfolding situation, notably logistics and housing, as well as juggling demands for information, communication, and collaboration with other societal actors. The team was led by a Chief of Staff and their tasks were expressed in general, functional terms. One person was appointed to handle planning and analysis and someone collected and compiled information into common operational pictures. Another was tasked with overseeing logistics, and one person was responsible for handling communication and contacts with the mass media. The team was physically situated in two, small, connected rooms. Team members attended regular briefings and meetings.

When asked about the team's main problem to solve, respondents state that the problem was the sheer number of refugees, and how this exceeded the Agency's ability to ensure fair and transparent asylum decisions. The huge number of refugees, combined with the lack of resources, disrupted the normal order, and migration officials felt insufficient. The notion of chaos and crisis largely stemmed from the feelings of not being able to carry out routine work or plan ahead. The team had to achieve some kind of order, and gaining control of the numbers was a key way to comprehend and manage the crisis.

*This many arrived yesterday, this number arrives today. [...] It was really all about registration capacity and number of arrivals, and housing capacity, not so much about other stuff that happened. (M6)*

Numbers were applied to keep track of the expected number of registrations, to plan housing, and in the huge logistic effort to provide buses to transport all new arrivals within, and away from Malmö. The Agency's overview of the situation was also based on figures: "Numbers in the hundreds, we talked about busloads" (M6).

Management focused on daily numerical targets, written on whiteboards in the staff room. Planning timeframes were very short, and the goal was to, "by the minute" (M2), make use of the numbers to reduce uncertainty and manage the flow.

*[The goal] was 'today we should manage this amount' [...] Almost hourly we did. [...] we sat [in the management room] and drew on the whiteboard [...] We accounted for the*

*numbers, how many we have, how many are on their way. Constantly. (M3)*

For respondents, quantitative goals were an expression of the daily volume of arrivals in relation to available capacity; they corresponded to the number of registrations, beds, meals, buses and applications to process. Priorities and adjustments were made to keep up with the figures, resulting in simplified registration procedures that aimed to give all new arrivals a roof over their heads. According to several respondents, this led to a great loss of quality in the process. The agency requested resources from other regions and new officials were hired to keep up with the increasing pile of asylum applications. Respondents seem to have shared the same notion of intensity, often expressed in numerical terms.

*The intensity that you felt and experienced there and then, that was something else [...] everything goes so incredibly fast [...] it was ten thousand per week. [...] We had [one facility] open for two days, then it filled up. A thousand beds. It says something about the intensity. (M2)*

These quantitative accounts are paired with vivid, qualitative descriptions of chaos. Hundreds of refugees walking on the highways towards Sweden, crammed platforms in Malmö's central railway station, refugees that filled every train and slept on the station's floor. The Agency's reception areas were packed, long queues of refugees filled the car parks, freezing in the cold, wet weather, and sleeping in makeshift tents or buses that kept their engines running. In addition, all interviewees expressed a desperate feeling of inadequacy.

*That volume upscale wasn't really bearable. We can manage 1000 and 2000 and 3000 and 4000 but not 10000 every week. [...] when you really see that there isn't enough capacity, and basic human needs are the critical issue. Then you felt... I won't say powerless, because it's the wrong word, but I would say inadequate. (M1)*

Interviewees describe how the unknown but seemingly escalating number of refugees disappearing became a concern for the team. They describe how busloads of unregistered refugees were sent north with no clear destination and the large number who wanted to travel on to other countries, in breach of the Dublin Convention. They describe this notion of Sweden becoming a "transit country" (M3, M4) as a loss of control. In terms of consequences, the number of applications also meant an impending number of deportations, a future responsibility for the Agency.

### The calculative practices of the City of Malmö

One main responsibility of the City of Malmö, notably the social services department, was to care for unaccompanied minors. Like the Migration Agency, the initial crisis could be managed with well-established, regulated procedures. According to the respondents, they were taken by surprise by the rapidly-growing number of refugees, the high number of unaccompanied minors, and subsequent demands for resources.

Under Swedish legislation, the Migration Agency is responsible for registering unaccompanied minors, who are then assigned to municipal social services. Within 48 hours a specific municipality is assigned to care for the minor. The volume of children led to a situation where the City of Malmö had to accommodate unregistered minors, as the Migration Agency was unable to keep up with registrations. In some cases, children stayed for over three weeks in improvised transit facilities, such as holiday homes or on mattresses on gym hall floors. The strained situation kept the department's managers awake at night.

*You held your breath each night when you left work, wondering 'How many are coming tonight?' [...] numbers, how many have come, where can we put them, where can we find accommodation, where am I going to find people to look after them? (C1)*

In mid-September, as demand for housing and staff grew, the municipality started organising in a crisis management organisation, supported by a crisis management team. The team came to rely on quantitative figures as a basis for dimensioning and planning response measures, aiming to find ways to monitor the flow based on accurate numbers.

*We couldn't influence the situation, they just came [...] but we could manage and control it based on planning, at least one hour at a time. (C1)*

Each day, information about the number of minors was collected and shared in the organisation. Another priority was to obtain quantitative prognoses from the Police Authority and the Migration Agency on the number of refugees expected to arrive from Germany and Denmark. Numbers were compiled in lists and summarised, used to update flip charts and whiteboards, and added to the situational pictures.

Planning and analysis centred on an Excel spreadsheet that monitored the number of unaccompanied minors in the municipality. The spreadsheet was reviewed daily and provided a way to manage uncertainty and gain control.

*You could say, from almost panic due to not knowing whether we had room or not [...] we finally managed to get some structure [...] even if the influx of unaccompanied children continued to be high, the organisation could relax knowing that we had it under control [...] [it] really reduced the strain. And just the fact that we knew, because we were expected to keep track of the number of children [...] the director, the city directorate, the mass media were asking for it. So, it was very good. (C3)*

Interviewees do not recall having a formal, stated objective. Their task was to monitor and manage the flow, and the constantly updated spreadsheet was a key tool.

*The rolling Excel spreadsheet, that was really the goals. Monday, Tuesday, Wednesday and we take a look and it rolls on. Ok, on Saturday it ruptures, since we lack 500*



*beds. Ok, then that became the operational goal, in two days we have to arrange for 500 extra beds. [...] It became very comprehensible (C5)*

By October, hundreds of unaccompanied minors were arriving every 24 hours. In the absence of qualitative goals, the crisis team set a quantitative limit on the number that could be managed by the system.

*There weren't really any goals, eventually we said '2000, then we can't manage any more'. (C1)*

These 2000 beds came to signify a balance, what could be managed with available resources. It defined municipal capability with regards to unaccompanied minors. Parallel with the reactive operative response activities, which focused on facilities, mattresses, meals, and other very concrete things, the calculative practices were successively applied in more long-term analysis, estimates and prognoses, to plan ahead and predict future trends. Towards the end of autumn, the City launched demographic analyses based on estimates from all of the municipality's departments, which resulted in changes to the 2016 budget.

*We made [short term] prognoses [...] primarily because of the children that quickly needed to be put in schools, both preschools and elementary schools [...] [The long-term prognosis] was an unprecedented growth 2017–2020. We ran estimations [and] we changed and revised the budget at the beginning of 2016 due to the prognosis. (C4)*

### The calculative practices of the Police Authority

The national Swedish Police Authority is geographically divided into seven regions. Its overall mandate is to maintain public order and safety and to protect the population. It has well-established, hierarchical management structures for dealing with crises, with supporting back staff teams and systems for sharing information.

*It makes no difference for us if we had this crisis situation or a soccer game. We run our concept [...] like we normally do. [...] We didn't need to change anything. (P1)*

In early September, when refugees began disembarking from trains at Malmö station, the Authority set up a regional crisis structure. The situation was classified as a special event and staff were assigned to a crisis team. Their initial task was to support the Migration Agency and maintain public order. The situation came as a surprise to most respondents, since usually only the Border Police were involved in migration issues. Respondents describe how the magnitude of the problem was overwhelming.

*It was so overwhelming. Everybody seemed so shocked about how rapidly so many came, and that it continued [...] thousands of people. (P4)*

The Police Authority is responsible for law enforcement. Since no laws were being broken, the initial response was passive and focused on being visible in areas where refugees were passing through. There was a profound sense of a lack of order. Team members focused on trying to understand the situation from a police perspective and organise themselves accordingly. While the interviewees are clear that their mission was to establish order and maintain security, they describe how difficult it was to translate this into action. Although the Commanders instructed their subordinates to support the Migration Agency, the widespread lack of knowledge of the asylum process made this direction difficult for officers to follow.

The police crisis team made large efforts to obtain an overview of how many refugees were expected to arrive. However, they perceived that the numbers provided by the Migration Agency were unreliable.

*We [asked the Migration Agency] 'How many do you have [in this facility]?' 'We don't know, we count the number of meals that have been served in the evenings'. Because it's not like an ordinary hotel, where you check in and check out. Instead, people came by buses, checked in, and then just left. They had no clue who was really there [...] No order at all, a complete mess. (P1)*

Keeping track of numbers became a way to monitor the flow, and the crisis team began to compile them. An officer who spoke German were deployed to visit ferry terminals along the German border to collect information and report back on numbers. At the same time, the national authority requested regular situation reports with quantitative figures from regional authorities. To a large degree, these reports contained quantitative figures. The Minister of the Interior asked for the same thing; numbers. Intelligence officers, who in day-to-day work are responsible for monitoring criminals and crime, became responsible for compiling numbers from various sources into lists and reports.

*[Reports] were be sent around, just simply numbers, in various directions and it was to be compiled. We created logs of different trains and ferries that I don't know if anyone anywhere made use of. But we counted, extensively. There was an incredible number of lists from various sources. (P4)*

While refugees arriving by plane and ferry could be counted relatively accurately, the number travelling from Denmark to Sweden across the Öresund bridge was more difficult to keep track of. Only very rough estimates could be made, and these were incorporated into the system.

*I went into the Øresundsbro konsortiet webpage and looked at their flow, 'How many vehicles are coming to Sweden from Denmark every day' and it was roughly 20000. Then there are trains, a train, every ten minutes with around 300 passengers. So, I multiplied those numbers and sent it on to the [national level]. [...]. It was only so they would understand the scope of it. (P3)*

In the situational pictures, these rough quantitative estimates were illustrated by the traffic light scheme: green, yellow, and red. Colours were meant to indicate the overall gravity of the situation, and the crisis team reported: "a red situation for almost eight months, basically" (P5).

Interviewees describe the police response as unconventional, in the sense that counting and calculating practices were not common tasks, and the purpose was largely unclear. This was acknowledged when police officers from other countries visited to study the response operation.

*I remember a visit from Great Britain [...] they were like 'Do you understand what is happening in your country when you keep the borders open? Do you realise how many guns and narcotics, how many criminals that are coming in?' 'No, we don't...' [...] They thought we were very naïve because we tried to organise buses to drive people to cottages in holiday resorts, which is what [the response] actually was about. (P4)*

This quote underlines how distant counting and logistical activities were from normal police work. Gradually, the police response shifted to a traditional, intelligence-based focus; issues of criminality and terrorism became part of the situational pictures.

*We talked about criminals that gained entry to the country following the refugee flow, who were not really refugees. (P4)*

A code was implemented in the crime reporting system, which linked reports and incidents to the response operation and the refugees. It included crimes committed by, and against refugees, counting them as offenders or victims of drug-related crimes, frauds, and fires at their housing facilities. Terrorism became another concern for the team, although in this case, no numbers were attached to the narrative. The team discussed the threat of terrorism, how terrorists could be hiding in the flow, the need to increase preparedness, and the pros and cons of police officers carrying submachine guns among refugees in public spaces. The coloured assessment levels in the situational pictures came to include an antagonistic perspective, signifying threats both from the refugees and against them.

The numbers were a central way to express many negative effects of the crisis. For example, the high number of arrivals was seen as a reflection of a future number of deportations.

*There are 160000 people coming in, and we said already, early on, that half will definitely have their applications rejected. Then we're talking about 80000 people who are going to be deported to their home countries. (P3)*

In addition, the crisis team also kept track of the number of missing children. Each time an unaccompanied minor unexpectedly left a transit facility, staff would file a police report, turning the case into a missing person enquiry.

*... every day we counted how many children were missing. There were so, so many. It was so strange, no-one knows where they went, if they even existed and how it happened. It was just numbers. It was so strange. (P4)*

Several interviewees claim that the unspecified number of unregistered refugees was the main reason why the Police Authority proposed border controls. The aim was to be able to monitor the flow more efficiently and acquire a more accurate number of arrivals.

Regional police were asked to predict the consequences of the situation. Most respondents make vivid descriptions of the refugee crisis as a problem potentially leading to increases in crime phenomena like drug-related crime, robberies, and sexual harassment. More dire predictions concerned increased unemployment, the exploitation of refugees, inadequate social structures, a strained legal system, the creation of parallel societies, and a tougher societal climate for police officers. To some extent, the escalating numbers came to signify these concerns, which were conveyed to national politicians.

*I did a presentation for [a top national politician] in December. He sat back and said something like 'It's a pessimistic future you're painting'. 'No' I said 'it might be pessimistic but we have to be prepared [...] if you don't do something now, you will have a societal change that you can't counter. But if you do something now and produce wise thoughts and contemplations, then you can take measures to prevent something much worse than what we are seeing today'. (P5)*

## Discussion

This analysis has highlighted an often overlooked but central feature of response management: the use of quantitative figures in the ordering practices of local crisis teams. In my view, such knowledge production practices are rarely investigated in terms of their own meaning and impact. Recent efforts to manage the Covid-19 pandemic show how fundamental numbers can be in monitoring, communicating and developing prognoses during crisis response, and that these practices are not limited only to the refugee crisis.

Managing the refugee crisis required managing a faceless flow of people. This discussion will focus on the inherent logic of counting practices, and raise critical theoretical questions about their application. First, the role of numbers within crisis teams is discussed; their usefulness in terms of clarity and comprehensiveness, and their impact on the notion of a crisis and societal disruption. Secondly, the dissemination of numbers among the authorities involved is addressed, not only in terms of coordination but also as a source of tension and mistrust. Finally, the uses of numbers in anticipatory practices, that seek to develop prognoses and assess future consequences in terms of risk, are discussed.

### The role of numbers in crisis management

During the crisis, calculative practices (Miller & Rose, 2008) were a central tool for all three teams, applied in key management activities. Throughout the response, they were utilised to comprehend the unfolding crisis, to visualise its scope, and illustrate the strenuous conditions. The numbers made comparisons possible, for example, the distribution of refugees among regions and municipalities, and the state of crisis could be compared to a state of normality in a strikingly clear way.

One of the main questions to answer for the teams was *how many?* Hence, numbers became sought-after data, presented on whiteboards in staff rooms, in Excel spreadsheets, in lists and graphs, and situational pictures, in seemingly clear and comprehensive ways. They were used for monitoring, reporting, and communicating, in goal setting and as a basis for making prognoses about future developments and their consequences.

The motivation for counting came from the key role that numbers played in dimensioning the immediate response. The principal goal of both the Migration Agency and the City of Malmö was to manage, on a day-by-day basis, the incoming volume in regards to available housing capacity. Counting heads was counting beds, as well as planning for logistical needs such as registration capacity, transports, and meals. The calculative practices matched demand with supply, based on a seemingly straightforward market logic, and the collection of fairly accurate figures became a central task in all three crisis teams. Being able to foresee the numbers appears to be a central feature of achieving control over the situation, for creating order (Rose, 1991), and for problem-solving (Espeland & Stevens, 2008). In the chaos, numbers seem to have imposed “order on hazy thinking” (Porter, 1996, p. 85). The excitement expressed over the Excel-chart developed in the municipal crisis team is a clear example of this.

Although the simplicity of numbers may be an advantage when responding to an emergency it can, at the same time, result in a one-dimensional picture that, in a process of commensuration (Espeland & Stevens, 2008), turns all shelter-seeking, individual refugees into no more than a logistical flow. While simple, numbers are not only numbers. There is an inherent, growing intensity in cumulative numbers, as they make the escalating crisis clearly visible. The interviewees expressed the intensity and acceleration they experienced in terms of numbers, connecting them to accounts of severe stress, inadequacy, being overwhelmed, and of failing. Moreover, it is clear that, particularly in connection to police practices, other meanings were attached to the numbers. In this process of problematisation (Bacchi & Goodwin, 2016; Rose 2000), numerical data became negatively framed (Bartl et al., 2019) as crime statistics, the number of missing children<sup>5</sup>, potential terrorists, and the questionable intentions of refugees in general.

### The dissemination of numbers as a feature of coordination

The numbers were a fundamental item in the situational pictures, such as the estimates of arrivals at ferry terminals and Malmö train station. The pictures were circulated within each authority, from bottom to top-level management, and shared between teams in regular coordination meetings. Both the City and the police used the traffic light scheme (green, yellow, red) to indicate the severity of the situation and to achieve a common understanding. However,

numbers were collected haphazardly, resulting in crude approximations. This is particularly striking in accounts of police counting practices: a single police officer who was deployed to Germany became the main source of estimated figures, which, in turn, became central to the work of all three teams.

The editing and transformation of raw numbers, as they travel through the system during a crisis, can obscure assumptions, choices, and inherent ambiguity. The initial premise disappears, and much of their authority comes from their ability to absorb uncertainty (Espeland & Stevens, 2008; Mennicken & Espeland, 2019). This observation is demonstrated by Collyer and King (2016), who show how official migration figures gain authority by repetition and their extensive use in both media reports and academic analyses, regardless of their uncertainty.

Each of the Swedish authorities attached different meanings to the numbers. The City was preoccupied with caring for the children, the Migration Agency was preoccupied with adjusting their administrative routines and increasing registration and housing capacity. In contrast, the Police Authority attached meaning reflecting the police mission, emphasising crime, disorder and risk.

The numbers were a factor of interdependence among the teams and seem to have caused problems for management when the quantitative figures were unknown or inaccurate. Both police and municipal respondents expressed frustration that the Migration Agency could not deliver accurate numbers or make prognoses, when, in normal circumstances, this is one of their responsibilities.

Politicians at both local and national level seem to have relied on the expert knowledge provided by crisis teams to make decisions, for example regarding border controls. It is reasonable to assume that seemingly reliable numerical estimates give credibility and reflect the priorities of the actors who prepare them (Espeland & Stevens, 2008). Porter (1996) argues that quantification is an effective way to detach knowledge from individuals, although in a crisis, knowledge and its producer are deeply intertwined (Rosenthal et al., 1991).

### The use of numbers in anticipatory practices

Extrapolating crisis numbers into future consequences were part of the work practices of the teams. In this sense, calculation was a way to answer the question of “What can we expect?” (Mennicken & Espeland, 2019, p. 228). Short-term expectations related to ensuring that the needs of arriving refugees were being met and corresponded to positively framed figures. However, this contrasts with long-term expectations, where numbers became a count of future problems and were predominantly used to articulate imagined, negative risk scenarios (Bartl et al., 2019; Beckert & Bronk, 2019).

The City of Malmö was quick to identify socioeconomic challenges related to housing, education, and other social services, and addressed these in their budget allocation of resources. Migration Agency respondents associated the numbers with an increased workload, irregular migration, and deportations. The darkest narratives prevailed among police officers, who foresaw increasing crime, risk of terrorism, unregistered refugees, and the creation of parallel societies. While these phenomena were problematised in the context of the

overall increase in the number of refugees, they were articulated in sweeping terms, as quantitatively unspecified consequences.

Mainly through the police practices, the reported numbers and numerical targets came to be infused with notions of risk, framed as potential, negative outcomes (Bartl et al., 2019). Rose (2000) raises concerns regarding this kind of risk thinking and the way control professionals seek to “bring[ing] possible future undesired events into calculations in the present, making their avoidance the central object of decision-making processes, and administering individuals, institutions, expertise and resources in the service of that ambition” (p. 332). From this perspective, the decision to impose border controls as a way to manage the crisis seems rational.

Another concern arises when refugee numbers are paired with standardised risk classifications, as in police reports and crime reporting codes. Rose (*ibid.*) claims that the “risk gaze” found among government officials, and the working practices that reproduce it, can come to define encounters between government officials and those affected. Particular categories of persons can become associated with an increased likelihood of undesirable behaviour. Gundhus and Jansen (2019) illustrate how such anticipatory knowledge practices were applied by authorities following the refugee crisis in Norway. Here again, the initial numbers compiled by crisis teams can have consequences that are far removed from the initial purpose of data collection – to meet the needs of refugees. Priorities have shifted from humanitarian efforts to protecting the nation from future threats, a shift that was acknowledged by respondents in this study.

## Conclusion

Numbers and calculative practices are inherent in planning and administrating activities in modern bureaucratic organisations, and so also in times of disruption. We are constantly counting in public administration, and this important management tool creates order and predictability. However, numbers and power are connected by how numbers become linked to specific problematisations, and it is through these processes of problematisation that crisis management practices are inescapably political. Numbers play a crucial role in how scarce societal resources are distributed during and after a crisis, as well as before the next one.

The theoretical perspective in this analysis gives an opportunity to recognise crisis management teams as a key site for knowledge production during uncertain circumstances, as local centres of power-knowledge. If this knowledge, intertwined with accounts presented by the mass media, serves as a basis to prioritise scarce resources on the societal level, then practices must be continuously scrutinised from a power perspective. How a disturbance is defined as a crisis, disaster or threat reveals important power relations, which impact response objectives, strategies and collaborative efforts. Important questions then become whose perspectives and preferences are given priority and why, and what the consequences are for the subjects of crisis.

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## Conflict of Interest

The author declares no conflicts of interest.

## References

- Ashcraft, K., & Mumby, D. K. (2003). *Reworking gender: A feminist communicology of organization*. Sage Publications.
- Bacchi, C., & Goodwin, S. (2016). *Poststructural policy analysis: A guide to practice*. Springer.
- Bartl, W., Papilloud, C., & Terracher-Lipinski, A. (2019). Governing by Numbers - Key Indicators and the Politics of Expectations. An Introduction. *Historical Social Research/ Historische Sozialforschung*, 44(2), 7–43.
- Bartl, W. (2019). Institutionalization of a formalized intergovernmental transfer scheme for asylum seekers in Germany: The königstein key as an indicator of federal justice. *Journal of Refugee Studies*.
- Beckert, J. and Bronk, R. (2019), *Uncertain futures: imaginaries, narratives, and calculative technologies*, MPIfG Discussion Paper 19/10, Max-Planck-Institute for the Study of Societies. Cologne.
- Boje, D. M., Luhman, J. T., & Baack, D. E. (1999). Stories and encounters between storytelling organizations. *Journal of Management Inquiry*, 8(4), 340–360.
- Bowker, G. C., & Star, S. L. (2000). *Sorting things out: Classification and its consequences*. MIT press.
- Bryman, A. (2012). *Social research methods*. Oxford university press.
- Cohen, P. C. (1999). *A calculating people: The spread of numeracy in early America*. Psychology Press.
- Collyer, M., & King, R. (2016). Narrating Europe's migration and refugee 'crisis'. *Human geography*, 9(2), 1–12.
- Copeland, J. (2008), Emergency Response: Unity of Effort through a Common Operational Picture, DTIC Document.
- County Administrative Board of Stockholm (2016). *På flykt och försvunnen – En nationell kartläggning av ensamkommande barn som avviker*. Report 2016:25. ISBN: 2016. 978-91-7281-706-7
- DeVault, M., & McCoy, L. (2012). Investigating ruling relations: Dynamics of interviewing in institutional ethnography. *The SAGE handbook of interview research: The complexity of the craft*, 381–395.
- Esin, C., Fathi, M., & Squire, C. (2014). *Narrative analysis: The constructionist approach*. The SAGE handbook of qualitative data analysis, 203–216.
- Espeland, W. N., & Stevens, M. L. (2008). A sociology of quantification. *European Journal of Sociology/ Archives Européennes de Sociologie*, 49(3), 401–436.



- Gundhus, H. O., & Jansen, P. T. (2020). Pre-crime and policing of migrants: Anticipatory action meets management of concerns. *Theoretical Criminology*, 24(1), 90–109.
- Jacobsson, K., & Åkerström, M. (2013). Interviewees with an agenda: learning from a 'failed' interview. *Qualitative Research*, 13(6), 717–734.
- Mennicken, A., & Espeland, W. N. (2019). What's new with numbers? Sociological approaches to the study of quantification. *Annual Review of Sociology*, 45, 223–245.
- Narby, P. (2014). *Time of Crisis: Order, Politics, Temporality* (No. 173). Lund University.
- Porter, T. M. (1996). *Trust in numbers: the pursuit of objectivity in science and public life*. Princeton University Press.
- Potter, J. (1996). *Representing reality: Discourse, rhetoric and social construction*. Sage.
- Power, M. (2004). *The risk management of everything: Rethinking the politics of uncertainty*. Demos.
- Riessman, C. K. (2014). Analysis of Personal Narratives. *The SAGE Handbook of Interview Research: The Complexity of the Craft*. London: SAGE Publ, pp. 367–380.
- Miller, P., & Rose, N. (2008). *Governing the present: Administering economic, social and personal life*. Polity.
- Rose, N. (1991). Governing by numbers: Figuring out democracy. *Accounting, organizations and society*, 16(7), 673–692.
- Rose, N. (2000). Government and control. *British journal of criminology*, 40(2), 321–339.
- Rosenthal, U., Hart, P. T., & Kouzmin, A. (1991). The bureau-politics of crisis management. *Public administration*, 69(2), 211–233.
- Sargiacomo, M. (2015). Earthquakes, exceptional government and extraordinary accounting. *Accounting, Organizations and Society*, 42, 67–89.
- Spak, U. (2017). The common operational picture: A powerful enabler or a cause of severe misunderstanding? In *22st International Command and Control Research and Technology Symposium 2017 (ICCRTS 2017)*, 6–8 November, Los Angeles, USA. International Command and Control Institute.
- UNHCR, 2016. <https://www.unhcr.org/news/latest/2016/7/55df0e556/unhcr-viewpoint-refugee-migrant-right.html> (Accessed Sept 26, 2019)
- van Ostaijen, M., & Scholten, P. (2017). The politics of numbers. Framing intra-EU migrants in the Netherlands. *Critical Policy Studies*, 11(4), 477–498.
- Wolbers, J., & Boersma, K. (2013). The common operational picture as collective sensemaking. *Journal of Contingencies and Crisis Management*, 21(4), 186–199.

## Notes

<sup>1</sup>I acknowledge that the words 'refugee', 'asylum seeker' and 'migrant' carry different meanings under international law and that these meanings matter (UNHCR, 2016). I have chosen to use the word 'refugee' in this article since it mirrors the terminology used by respondents, and how the event was labelled in Sweden (as 'the refugee crisis' or 'the refugee situation').

<sup>2</sup>Seven respondents. Quotations marked as C1–C7 refer to the City of Malmö

<sup>3</sup>Six respondents. Quotations marked as M1–M6 refer to the Migration Agency.

<sup>4</sup>Seven respondents. Quotations marked as P1–P7 refer to the Police Authority.

<sup>5</sup>The example of missing, unaccompanied children illustrates this point. Respondents noted it as a particular problem for both the City and the police crisis team. Regardless of how inaccurate the numbers might have been, they were used as a symbolic illustration of the severity of the crisis. A post-crisis evaluation carried out in 2016 (County Administrative Board of Stockholm, 2016) could not determine how many missing, unregistered children were residing in Sweden. However, it did conclude that the proportion was very low compared to the total number that arrived. The story of the missing children is a key feature in government problematisations of the refugee crisis; it has its own emotional narrative, unrelated to the numbers.