Dilemmas and Discretion in Complex Organizations: Professionals in Collaboration with Spontaneous Volunteers During Disasters

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Abstract

Discretion is of major interest in research on professions. This article focuses on professionals' discretionary reasoning about collaboration with spontaneous volunteers. By applying theories on discretion and institutional logics and drawing on disaster management research, we analyse interviews with fire and rescue service professionals involved in managing a large-scale forest fire in Sweden. We identify five major dilemmas concerning the involvement of spontaneous volunteers in the official disaster response and analyse the influence on professional reasoning of multiple institutional logics (professional, citizen, bureaucratic and market) embedded in the emergency organization. The analytical framework connects structure and agency by linking institutional logics to discretional reasoning, and the findings clarify professional emergency responders' perspectives on the opportunities and challenges of involving spontaneous volunteers in an operation.

Keywords

Dilemmas, disasters, discretional reasoning, fire and rescue service, institutional logics, professionals, spontaneous volunteers

Introduction

Discretion is an area of major interest in research on professions and occupations and has been studied in various fields such as health care, social services, education and legal systems (Evans, 2020; Freidson, 2001; Harrits, 2016; Johannessen, 2016; Lipsky, 2010; Maynard-Moody & Musheno, 2012; Wallander & Molander, 2014). This article highlights discretion in disaster management, specifically the reasoning of professional emergency responders concerning dilemmas that arose during collaboration with volunteers. The disaster was a large-scale forest fire in Sweden, and the professional emergency responders work for the fire and rescue service[i].

During disasters, professionals must manage both the extraordinary event and relations with affected citizens. Citizens often participate as volunteers, and their help may be of crucial importance (Helsloot & Ruitenberg, 2004). Nevertheless, research shows that professional emergency responders[ii] often perceive volunteers as a "mixed blessing" because they can be complicated to work with (Barsky, Trainor, Torres & Aguirre, 2007; Kvarnlöf & Johansson, 2014). This is particularly true for those volunteers without organizational affiliation who arrive on the scene of a disaster (Harris, Shaw, Scully, Smith & Hieke, 2017; Johansson, Danielsson, Kvarnlöf, Eriksson & Karlsson, 2018; Persson & Uhnoo, 2018; Schmidt, 2019). Such people are known as *spontaneous volunteers* (SVs), defined as "people who, although not affiliated to 'official' non-profit or governmental response organisations, arrive to provide unpaid help at the time of sudden unplanned events, often disasters" (Harris et al., 2017, p. 353). Moreover, there have been recent changes in volunteering, such as increased numbers of SVs converging on disaster scenes, and a rapid spread of information and extensive mobilization of donations through social media (McLennan, Whittaker & Handmer, 2016; Whittaker, McLennan & Handmer, 2015). These factors, together with expectations that professionals will collaborate with volunteers and the private sector to compensate for economic cutbacks to emergency organizations while remaining accountable for overall disaster operations, may add to the challenges for professionals.

In this article, we shall see that seemingly unproblematic offers to help from SVs raises dilemmas for professional emergency responders. We suggest that dilemmas occur because professionals work in an organization and situation where they must consider multiple and potentially conflicting institutional logics. These provide material, normative and symbolic frames that condition different understandings and actions (Delbridge & Edwards, 2013). We investigate how four macro logics—professional, citizen, bureaucratic and market logic (Persson & Uhnoo, 2018)—embedded in an emergency organization, have profound impacts at the micro level on the individual emergency responder.

Thus, this article explores professional emergency responders' discretionary reasoning concerning collaboration with SVs. The findings are based on interviews with fire and rescue

service professionals who managed a large-scale forest fire in the province of Västmanland, Sweden. Our main research questions are: What dilemmas does the involvement of SVs in the official disaster response operation raise for professional emergency responders? How can these dilemmas be explained in the context of the extreme situation and multiple institutional logics within the organization?

We make three contributions. The first is a detailed empirical investigation of professional responders' reasoning about the opportunities and challenges arising from the involvement of SVs in an official disaster response operation, which may have practical value for disaster management. The second is to combine the literature on professional discretion, institutional logics and research on disaster management. To our knowledge, connections between these areas remain limited, although they may be fruitful for research. Third, we link agency and structure through an analytical framework discussed in terms of discretional reasoning on dilemmas conditioned by institutional logics.

The article proceeds as follows. We first outline the theoretical framework and review the literature on disaster management and SVs. Then, we present the methods and findings. We conclude by summarizing and discussing the main findings.

Theoretical framework

Research on professional practices has highlighted aspects of *agency*: identity, sense-making, pragmatic improvisation, reflexivity, and creativity; *interactions*: relationships, conflicts and emotion management, and *structures* such as institutional conditions (Bévort & Suddaby, 2016; Blomgren & Waks, 2015; Delbridge & Edwards, 2013; Evans, 2020; Harrits, 2016; Johannessen, 2016; Maynard-Moody & Musheno, 2012; Uhnoo & Persson, 2020). Our theoretical framework builds on a metatheoretical interest in precise agency, interactions, and structure, and particularly in their interrelationship. We agree with Archer that:

> Structures exist, they impinge upon people by shaping their action contexts, but they do not work by pushes and pulls upon passive agents. The reception of such influences by active agents is therefore indispensable to understanding and explaining the eventual outcomes, which are mediated through their reflexivity (Archer, 2010, p. 12).

This section provides a theoretical discussion of professional agency and reflexivity in terms of discretionary reasoning about dilemmas, which is shaped by structures in the form of the institutional logics from which the dilemmas arise.

Discretionary reasoning and dilemmas

Discretion has been emphasized as a central characteristic of professions (Evans, 2020; Freidson, 2001). In our study, the distinction between discretionary space—that is, discretion in a structural sense—and discretionary reasoning is central (Molander, Grimen &

Eriksen, 2012). While *discretionary space*, or "the hole in a doughnut" to use a metaphor (Dworkin, 1978, p. 31), refers to an area framed by rules and standards set by a particular authority that generate opportunities to decide and act as well as demands for justification, *discretionary reasoning* refers to professionals' reflexivity and judgements about which actions to take in a particular case under conditions of indeterminacy. Moreover, the concepts are linked because discretionary reasoning is conditioned by discretionary space (Molander, 2016). Most studies on discretion have focused on structural aspects. However, this article draws attention to professionals as reflexive agents and their discretionary reasoning, as opposed to "implementation control" perspectives, where professionals (i.e., street-level workers) are viewed as implementers of public policies and rules (Maynard-Moody & Musheno, 2012, p. 16) or those that frame professionals as "unreflexive carriers of institutions" (Delbridge & Edwards, 2013, p. 2).

Discretional reasoning may concern dilemmas, that is, tensions between diverse demands and needs that are not easily resolved but must be managed. In dilemmatic situations, professionals must prioritize amongst multiple values, demands and needs, select from various alternatives that have both advantages and disadvantages, and/or make compromises (Carlson, Poole, Lambert & Lammers, 2017; Oldenhof, Postma & Putters, 2014; Schmidt, 2019). Reasoning about dilemmas often includes a description of the situation and relates it to norms that justify and entail an act (Molander & Grimen, 2010). Professional responses to dilemmas are expected to be grounded in scientific knowledge, laws and generally accepted principles that differentiate them from ordinary and more arbitrary exercises of power (Molander, 2016).

Institutional complexity

Although professionals may be reflexive agents with discretional powers, they are also affected by structural conditions. While the concept of discretionary reasoning captures aspects of agency, we also build on the concept of *institutional logics* to highlight how the structural conditions of social institutions, such as the professions, state, market and civil society, shape the contexts of organizations and individuals. Each institution (as an ideal type) has its own logic—structure, norms and symbols—that conditions actions in interdependence and contradiction with other logics (i.e., institutional complexity) (Delbridge & Edwards, 2013; Friedland & Alford, 1991; Thornton & Ocasio, 2008; Thornton, Ocasio & Lounsbury, 2012). Our study focuses on four logics that we suggest conditioned—by which we mean constrained, enabled and motivated—professionals' discretional reasoning. These logics are embedded in the emergency organization. The first, *professional logic*, links expertise and the translation of theoretical knowledge ("know why") to practice ("know how") (Brante, 2011). Such expertise is based on long socialization and collegiality, which differentiates it from more spontaneous forms of understanding and actions. In addition, professionals are also socially dependent on attributed legitimacy (Brante, 2011; Freidson, 2001). In our case, professional logic may be used by professionals to motivate

actions to establish trusting relations with citizens and to justify the exclusion of volunteers without expertise in disaster management. The second, *bureaucratic logic*, relates to political governance and seeks impartiality and equity in welfare organizations through a hierarchical structure, regulations, and guidelines. This logic may justify exclusion, because SVs' actions may be unpredictable and difficult to integrate into a rules-based hierarchical organization. The third, *market logic*, is characterized by welfare production based on market principles, competition and cost efficiency (Blomgren & Waks, 2015; Freidson, 2001; Thornton et al., 2012). This logic may motivate inclusion or exclusion of volunteers based on the services they can perform, and for what cost. Finally, we call the fourth form *citizen logic*, which is not as established in the literature as the other three logics are. Instead, it encompasses elements from several studies of institutional complexity. Citizen logic is characterized by ideals of citizen participation in public welfare production (Blomgren & Waks, 2015; Friedland & Alford, 1991). It emphasizes the importance of collaboration with citizens, acknowledging their situated experience and knowledge as well as their responsibility to contribute, and may justify inclusion based on citizens' rights and obligation to contribute during disasters.

To summarize, we address professional agency by discussing discretionary reasoning regarding dilemmas, which we interpret to be subjective understandings of objective structural settings, that is, complex situations where multiple institutional logics are in play at the same time.

Research on volunteer participation in disaster management

Currently, there is a "participatory turn" (Strandh, 2019, p. 311) in disaster research and policy, which stresses the importance of collaboration between emergency organizations and civil society (McCann & Granter, 2019; McLennan et al., 2016). In disasters, emergency services may be organized into an *official disaster response operation* (OR), which is "part of the national system of civil protection and preparedness" and which "has a clear organizational structure, is governed by laws and regulations, and takes the form of a workplace, where a number of different actors collaborate in order to respond to the challenges caused by the disaster" (Johansson et al., 2018, p. 3; see Kvarnlöf & Johansson, 2014). During disasters, extensive resources need to be mobilized quickly, and help from volunteers may be crucial (Helsloot & Ruitenberg, 2004).

Traditionally, volunteer participation in ORs has largely been mediated through organizations such as the Home Guard and the Red Cross. Membership of voluntary organizations is a source of legitimacy, and professional responders generally prefer involvement by affiliated volunteers (Johansson et al., 2018; Strandh, 2019) owing to their greater co-ordination and similarity to professional responders (e.g., in terms of screening, training and equipment). Nevertheless, there are challenges involved in collaboration with

organized volunteers, such as the balance between autonomy and co-ordination, which even organized volunteers may lack (Phillips, 2016). However, citizen engagement in voluntary organizations has decreased, while interest in participating in specific events has increased (McLennan et al., 2016).

Unaffiliated volunteers, or SVs, have been studied in different situations: car accidents, fires, floods and refugee reception efforts (Harris et al., 2017; Johansson et al., 2018; Kvarnlöf & Johansson, 2014; Lorenz et al., 2017; Schmidt, 2019; Skar, Sydnes & Sydnes, 2016), although they have received less attention than other disaster volunteers such as organized volunteers and informal volunteers (family, friends and neighbours) (Harris et al., 2017). Research indicates that although SVs can be external to the disaster site and travel there, they are often local. Local SVs have the advantage of being quickly in place, with local knowledge and access to resources and networks (Kendra & Wachendorf, 2001; Wachtendorf & Kendra, 2004). However, it can be difficult to co-ordinate and utilize a large number of SVs; professionals may not be ready or able to integrate SVs into the OR (Barsky et al., 2007; Fernandez, Barbera & Van Drop, 2006; Whittaker et al., 2015). Volunteers' interest in being involved in the OR and the need for volunteers to cover shortages of resources—in contrast to professional resistance to their use in risky situations—have been called an "involvement/exclusion paradox" (Harris et al., 2017). To conclude, despite their potential valuable contribution to disaster management, SVs also pose specific challenges for professionals and these will be examined in the findings.

Method

Description of the case

Our study concerns discretionary reasoning in a strategic case, namely an extreme situation where important decisions on complex issues often had to be made promptly. The context is a large-scale forest fire in the Swedish province of Västmanland in 2014. It was the nation's largest forest fire in modern times, during which one person died, several were injured, over 1,000 people and 1,700 domestic animals were evacuated, and large material losses occurred. The fire and rescue service had the overall responsibility for managing the disaster operation; 69 local fire and rescue organizations and about 1,500 military personnel worked for weeks to manage the fire and its consequences. In addition, volunteer organizations, citizens, online volunteers, and companies joined the operation (Ministry of Justice, 2015).

Design and data collection

The study was conducted as part of a research project on co-operation between professionals and volunteers during the 2014 Västmanland fire. Our main empirical material for this article consists of 16 semi-structured interviews with 17 personnel from fire and rescue service: 11 respondents at the strategic level (SL): chief fire officers, local fire chiefs

and incident commanders; and six respondents at the operational level (OL): one fire crew foreman and five volunteer firefighters. The majority of interviews (14 of the 16) were conducted during three field trips (two trips in early 2017 and one trip in the spring of 2018) to the fire-affected area, and in all but two cases the interviews were conducted at the interviewees' workplaces. All interviews were held face to face, lasting 25–130 minutes with an average of approximately 75 minutes. The project was assessed at a regional ethics review board in Sweden and conducted in accordance with national ethical guidelines for research.

The interviews targeted the respondents' reflections and experiences. We neither expected the respondents to reconstruct fully or articulate their operational decisions and the prerequisites for these, nor did we expect their reasoning to reflect their actions during the disaster operation in a straightforward way. Moreover, the interviews were based on retrospective reasoning more than 2.5 years after the disaster, which entailed a risk of unclear memories of thoughts and details. At the same time, the distance in time had given the participants time to reflect on their experiences and the interviews concerned an event that clearly had a deep impact. Thus, the professionals gave detailed and multifaceted answers, and were forthcoming about their practices, context and structural conditions.

Analysis of the material

The interviews were recorded, transcribed verbatim in their entirety, and coded using Atlas.ti software. While the research project took a broad approach to collaboration between professionals and various types of volunteers, it became apparent that professionals' reflections to a great extent concerned SVs, which motivated this study's focus. The transcribed interviews were analysed using induction, retroduction[iii] and deduction in three partly overlapping phases (Danermark, Ekström & Karlsson, 2019). The inductive approach to the material enabled identification and exploration of dilemmas in responders' collaboration with SVs, and the application of existing theory by retroduction and deduction created an opportunity to investigate why these dilemmas emerged and differences in understandings. In the first phase, inductive codes were used to explore the material, which was coded in descriptive terms such as "contributions", "problems with SVs" and "dilemmas". In this process, the professionals' ambivalence towards SVs became obvious, and five major dilemmas were identified in the material (see Findings). In the second, more theoretical phase, the retroductive question, "what makes x [in this case the dilemmas] possible?" (Danermark et al., 2019, p. 118), was used in a thought exercise whereby the dilemmas in a general and theoretical way were conceptualized as emanating from professionals' reflexive understanding (agency) of structural conditions in the form of multiple and conflicting logics. In the third deductive phase, dilemmas were analysed by applying theories on institutional logics, and different implicit logics (professional, citizen, bureaucratic and market) were identified during the coding. In the process, our initial assumptions on how different logics might motivate professionals either to argue for

inclusion or exclusion of SVs had to be revised. We expected, for example, that an orientation towards bureaucratic logic would restrain professionals from involving SVs, but the material showed that all four logics could be used to justify the inclusion or the exclusion of SVs (Table 1). Furthermore, to highlight agency and discretionary reasoning, the interview transcriptions were searched for individual variations in reasoning about the dilemmas, and ways in which the implicit logics were negotiated and used to justify actions.

In the Findings section, quotations from the transcripts are used to illustrate the professionals' discretionary reasoning. The quotations are translated from Swedish by the first author. The interviewees are identified by their position in the disaster management, using "SL" for strategic level and "OL" for operational level, followed by an individual number, for example, "SL3". Sometimes, additional information has been inserted in square brackets: [ ]. For the background, we drew on supplementary empirical material from our research project: 15 interviews with 17 volunteers and officials involved in the management of the fire. By grounding the analysis in further empirical material and relating it to research and theory, we intend to contextualize the individual statements (Crouch & McKenzie, 2006), and examine the influences of structure and agency on discretionary reasoning.

Findings

"The thing is, we need them"

The forest fire started during an extremely hot and dry summer, and quickly grew beyond the control of the local fire and rescue services (Ministry of Justice, 2015). The need for extra resources led professionals to consider collaboration with volunteers: "The thing is, we need them [the volunteers]... Swedish fire and rescue services do not have the resources to cope with such a situation." (SL21) Many volunteers were spontaneous: "Today you [volunteers] want to be there when it happens, and then 'I'll be back the next time you need me'" (SL28; see McLennan et al., 2016). SVs possessed important resources because they often lived in, or near, the disaster area (Wachtendorf & Kendra, 2004); interviewees stressed in particular the following:

- Cultural resources: local knowledge, organizational ability, and special skills, for example, in IT and in animal handling during the evacuation
- Social resources: contacts and relationships that could be mobilized for support
- Material resources: access to food, fuel, machinery, and shelter
- Physical resources: labour, or "hands and feet"

Furthermore, the interviewees indicated that it was preferable for SVs to possess combinations of resources, for example, by being in good physical condition, owning suitable equipment, coming in larger numbers/from wider networks, and being prepared to work, for example, by being "at the front" with firefighters (SL3).

Dilemmas and discretion concerning SV involvement

Even though professionals emphasized the importance of volunteers' contributions, they expressed clear ambivalence towards involving SVs in the OR (Harris et al., 2017), which appeared to be associated with five major dilemmas.

Immediate help versus difficulties in assessing crisis resources and legitimacy

According to the interviewees, the dynamic and extreme situation created an urgent need for assistance, but more volunteers wanted to help than they could manage (Ministry of Justice, 2015; Whittaker et al., 2015). The professionals reported that it was a "delicate" and "very difficult" task to differentiate suitable people from those who "would only be a problem" (SL3; see Barsky et al., 2007). The SVs who gained legitimacy were perceived as realistic and risk conscious, in contrast to those with exaggerated notions of their own ability: "Well, he wanted to muster people and he could fix the whole thing, no problem at all. It was pure imagination. You must stop such a person. He becomes dangerous for others and himself" (SL15). SVs' legitimacy also depended on whether they were considered to be honest (as opposed to criminals, SL27) and with reasonable expectations: "Some people, they have their most expensive, finest clothes, and if they get damaged, then there will be a claim for compensation for clothes for 10,000 [SEK]" (SL3).

When asked how they assessed the potential suitability of a volunteer an interviewee responded: "We probably never did" (SL27). Instead, they were pragmatic and accepted help from those who were available, "the people standing there". Another respondent pointed out that the extreme situation at the beginning of the disaster meant that there was hardly any selection process at all: "It was such a huge area that pretty much everyone who wanted could help" (OL12). However, some professionals stressed the difficulties of collaboration with SVs: "The quality isn't assured. We don't know what they're capable of" (SL28; see Johansson et al., 2018), which implies a more restrictive approach to SVs.

Thus, the first dilemma for professionals was that the disaster created a need for volunteers, but the escalating fire and resource shortages within the OR made it difficult to assess SVs' crisis resources and legitimacy. Although discretionary reasoning was exercised in limiting SV participation based on professional logic ("the quality isn't assured"), some respondents expressed great pragmatism and justified involving SVs owing to the extreme situation and citizen logic (i.e., SVs being accessible and able to contribute).

Professionals' need for help versus risks to volunteers

Professionals needed support, but the situation posed risks for SVs. The fire and rescue service's jurisdiction is to prevent risks and handle accidents, and an interviewee said: "We have a clear priority where we consider the risks—what we expose them [volunteers] to." (SL27; see Barsky et al., 2007; see also Harris et al., 2017). The interviewee stressed that they did not "normally" use volunteers: "[because of] the risks we are exposed to, we don't

want to include people who are not trained" (SL27). However, another professional emphasized SVs' complementary resources in the form of local knowledge and appropriate means of transport, which was needed because residents had to be rapidly evacuated from the fire-affected area:

> I wanted to concentrate on… doing what we [professionals] could. That was to put out the fire. We had the equipment; we had the knowledge. They [the SVs] knew where the houses were. So, I asked first and foremost "Are you a resident here?" "Yes, I live here", "Do you know the area?... Do you find all the houses?" "Yes, I grew up here". "Good, go then". They had the vehicles; several had quad bikes… So, then I thought I could use them… They were better than us at evacuating. They were faster. They knew where the houses were. (SL21)

Thus, a second dilemma was balancing the OR's need for help from SVs' against the risks of involving them. Discretionary reasoning followed professional logic and jurisdiction about protecting SVs from risks, which deterred professionals from involving them. However, professional and citizen logic could justify SVs' involvement because professionals could focus on their core mission if volunteers conducted some activities based on their local and complementary crisis resources.

Volunteers' desire to help versus additional work and risks for professionals
Interviewees were inclined to include SVs to help citizens affected by the fire, if only to reduce their anxiety and frustration: "I think that is important, just to get a work task" (SL15). In addition, rejecting SVs posed a risk to the OR in the form of potential protests from SVs, which required much effort for professionals to manage and might result in negative publicity (SL29) and diminished legitimacy for the OR (Nohrstedt, Bynander, Parker & 't Hart, 2018; Uhnoo & Persson, 2020). On the other hand, interviewees also perceived risks to the OR if SVs participated and were injured during the operation: "'How on earth could you, as personnel of the fire and rescue service, give the person [the volunteer] this task? You didn't know anything about the competence of the person. Because we have responsibility for their work environment" (SL17).

In addition to volunteers converging during the fire, material convergence also occurred (Whittaker et al., 2015). This meant that citizens donated and delivered food, drinks, fuel, equipment and other gifts. Although some donations were very much appreciated, professionals stated that the inflow was too large and many gifts, such as fruit, hygiene articles, colouring books and teddy bears, were not needed. An extensive influx of random gifts has been called a "second disaster" in disaster management research (Starr & Van Wassenhove, 2014, p. 934) because it causes additional work and administrative challenges. As an interviewee said, "What shall we do about it [all the gifts]? We just gratefully accept them and say 'Oh, it's great that you are doing this'" (SL19).

To clarify, a third dilemma concerned professional responses to citizens' eagerness to participate and donate, in situations where the OR did not need help and the donations did not suit the needs. Accepting SVs' initiatives was perceived as a way of avoiding conflicts. Professionals expressed views on the need and right of citizens to participate (citizen logic) as well as on the importance of maintaining their legitimacy and good relations with citizens by not rejecting their initiatives (professional logic). Concerning donations, the professionals prioritized their relationship with citizens (citizen and professional logic) over the administrative challenges the donations created (bureaucratic logic). However, laws, regulations and accountability (bureaucratic logic) were used to justify exclusion of SVs if the professionals considered there were risks of injury to citizens.

Professionals' desire for autonomous volunteers versus the need for co-ordination
Interviewees emphasized the importance of self-sufficient SVs, but this could entail risks because such SVs may expose themselves and others to danger, and a lack of co-ordination may impede the OR. Initially, professionals had limited opportunities to register, equip, organize and lead SVs: "If you [the SV] come rushing in saying 'Yippee, I want to join', then we [the professionals] had no possibility of taking care of this individual, not even registering him" (SL29). SVs could then become "energy thieves" who drained resources from the OR rather than contributing to it (SL29). SVs who needed to be organized and monitored, thereby taking resources from the OR, were contrasted with autonomous SVs, for example, local farmers and forest owners with appropriate equipment and good knowledge of the area; according to an interviewee, they could "join on their own initiative" and perform tasks such as making firebreaks and extinguishing fires (SL28).

> They were autonomous… The only thing we [the professionals] could say… "Make sure you don't get trapped anywhere. First and foremost, never work by yourself, work at least in pairs"… If we would say something like "you are under my command now" or something like that, they would probably have just laughed and left the place. They did their thing. (SL23)

There were also volunteers who travelled to the disaster site and joined with equipment such as wagons and tankers: "They were very capable and it was no problem, but we didn't know where we had them… the whole situation was very chaotic" (SL21). Furthermore:

> The problem is, if you are a firefighter… then you know the hierarchy, how to respond to orders … They [the SVs] made their own decisions. All of a sudden: "No, we [the SVs] are going in here". Then they went straight into the fire area … Then, we [the professionals] had to try to call them back. "No, but you must not go in". (SL21)

A problem with freelancing SVs was that they could become an extra burden instead of supporting the disaster operation by putting themselves at risk. Then, the OR had to rescue

them and conduct "rescue missions in the rescue work" (SL27). Moreover, SVs' initiatives could hinder the OR's activities, for example by preventing the OR from waterbombing an area if it was uncertain whether freelancing SVs were present.

To summarize, a fourth dilemma concerned professionals' requests for self-organizing volunteers who did not require management from the OR, but at the same time, such autonomy could mean that SVs exposed themselves and others to risks, hindering the efforts of the OR. Professionals' discretionary reasoning about this dilemma mainly concerned citizen logic—to enable activities by autonomous and resourceful SVs—and bureaucratic logic, in the importance of co-ordinating and respecting the OR's organizational hierarchy.

Professionals' need for resources versus the risk of rampant costs
The OR needed resources from volunteers, but at the same time, the interviewees were worried about economic costs connected to SVs. Local farmers and foresters had machines that could be used for extinguishing fires and making firebreaks, and some offered free assistance. However, if professionals contacted, for example, a farmer for help they were expected to reimburse him/her for work and expenses. The demarcation between SVs who offered to work for free and entrepreneurs in fields such as agriculture and forestry who earned money from participating in ORs was often not clear to interviewees. The concern for financial costs meant that some offers of help were turned down: "'You [professionals] want help, huh?' 'No. We [professionals] can manage this ourselves'" (SL21). Interviewees reported that, initially, fear of costs was a major problem: "What would the manager say? When he sees the bill, he will yell at you" (SL21).

When the OR was eventually resupplied from national and international professional sources, farmers were excluded. Then, according to one respondent, an "intense" discussion arose: "They [the farmers] were pretty hot-tempered when we [professionals] didn't want their help anymore" (SL19). The respondent interpreted the reaction as an expression of volunteers still wanting to help, but also perceived financial incentives behind the willingness to continue. As another interviewee said about local forest farmers: "Our [the OR's] mission is to look at the whole picture, the best interests of the general public. Their job is to protect their own interests. And here we can have a conflict situation" (SL29).

The fifth and final dilemma concerned the ambiguity of the nature and costs of voluntary activities. The OR indeed required assistance from volunteers, but professionals were concerned about the potential economic costs. Their discretionary reasoning was related to assessing offers from volunteers, such as farmers and foresters, who, in accordance with their local connections and citizen logic, offered important materials and resources, while taking into account market logic in possible economic incentive and self-interest of SVs in participating in the OR.

Discretional reasoning and institutional logics

This article proposes that conflicting institutional logics embedded in the professional emergency organization were prominent as causal mechanisms contributing to the dilemmas experienced by professionals. We provide a further example of how multiple logics conditioned and framed professionals' reasoning by highlighting a reflection by an interviewee with extensive experience of disaster management. He reasoned about when to involve SVs in the OR: "We have four criteria: how urgent is it? Can [the volunteer] make a difference? Is it reasonable that this person will manage it? The cost of it … and then … whether this person should do it instead of us [the professionals]" (SL27). These criteria, we suggest, correspond with *citizen logic* (whether local citizens can be in place quickly and make a difference), *professional logic* (whether it is reasonable to believe that the SVs have the knowledge and skills required) and *market logic* (whether the activity is cost-effective). In addition, the interviewees use of the criteria may be interpreted as being grounded in *bureaucratic logic* because those aspects (urgency, importance, cost and other circumstances) are used in law (Swedish Code of Statutes 2003: 778, §2) to define the conditions under which fire and rescue service must mobilize rescue operations, and the professional transferred this to situations of potential collaboration with SVs.

A further interesting finding is that not only did *conflicting* logics contribute to dilemmas and motivate diverse actions, but somewhat paradoxically, the *same* logic could be used to justify the inclusion of SVs in the OR as well as their exclusion (Table 1).

Table 1. *Examples of logics being mobilized by professionals regarding SV involvement*

Logics and their characteristics	Aspects of the logics that favour inclusion (+) or exclusion (–) of SVs	Examples of logics mobilized in professionals' discretional reasoning about SVs' involvement
Professional logic: Professional expertise and norms govern welfare production	+ SVs' complementary activities enable professionals to focus on their central tasks – SVs' contribution is uncertain; it takes time and effort to organize SVs and this is not a legitimate task for professionals	"I wanted to concentrate on… doing what we [the professionals] could. That was to put out the fire. We had the equipment; we had the knowledge". "The quality isn't assured. We don't know what they [the SVs] are capable of". SVs as "energy thieves".
Citizen logic: Citizens' rights and obligations to participate and influence governs welfare production	+ SVs' important crisis resources and empowerment responds to the human side of crises management – Risks for SVs; SVs' vested interests	"They were better than us at evacuating. They were faster. They knew where the houses were". "I think that's important, just to get a work task". "[because of] the risks we are exposed to, we don't want to include people who aren't trained". "Our mission is to look at the whole picture, the best interests of the general public. Their job is to protect their own interests".
Bureaucratic logic: Rules and laws, organizational routines and hierarchical control governs	+ Co-operation is prescribed in legal documents – Legal risks to the OR (employer responsibility and insurance aspects); it is hard to manage (freelancing SVs)	"We talk about urgent, reasonable, important and economical …" (SL27; cf. Swedish Code of Statutes 2003: 778, §2). "We cannot take responsibility for your security… Are you insured?"

welfare production		"The problem is, if you are firefighter… then you know the hierarchy, how to respond to orders… They made their own decisions".
Market logic: Private actors with commercial interests compete in welfare production	+Volunteers can offer extra resources to OR – Potentially expensive, volunteers with economic self-interest	"When we work with a company or organization, then I can make demands, then I can decide". "What should the manager say? When he sees the bill, he will yell at you". "They were pretty hot-tempered when we didn't want their help anymore".

Individual professionals could prioritize different logics and use the same logic in diverse ways to reflect on dilemmatic situations and how to manage them. Moreover, the extreme and chaotic situation at the beginning of the disaster, a phase called a "vacuum of authority" in disaster research (Fernandez et al., 2006, p. 4), allowed extensive discretional space for the individual professional. However, this also caused substantial intellectual and emotional tensions (Bévort & Suddaby, 2016). As an interviewee said, "The volunteers made a major contribution. It's just that if you [as a professional] had a strong need for control and wanted things to go by the book, you would get stomach ulcers over how it was carried out" (SL20).

Conclusion

This article has discussed professional emergency responders' collaboration with SVs, which is an issue that has received little scholarly attention (Harris et al., 2017). The study draws on interviews with personnel in the fire and rescue service and presents a detailed study on professionals' discretionary reasoning on dilemmas related to the involvement of SVs in the OR. A practical contribution of the article is that it empirically identifies the opportunities and challenges of involving SVs in a disaster operation. Knowledge about how SVs can contribute, and the potential frictions involved in collaboration may be valuable for future disaster managers seeking to integrate SVs in constructive ways and prevent problematic situations. Another contribution is that the article links research on disaster management (fire and rescue services), professional discretion and institutional logics. To our knowledge, few connections have previously been made between these research areas, although we consider such connections to be fruitful. Finally, we interpret dilemmas as subjective understandings of complex situations in which multiple institutional logics are simultaneously in play. We therefore use an analytical framework where we apply theories on institutional logics to highlight structural conditions facing professionals in a complex organization and how this situation raises dilemmas. Moreover, we address professional agency by applying theory on discretionary reasoning to focus on how professionals in a variety of reflexive ways seek to understand a dilemmatic situation and prioritize and justify actions based on (implicit) logics. Such empirical studies on the "microfoundations of institutional logics" have been rare (Blomgren & Waks, 2015, p. 79).

Main findings

In the introduction, we posed two research questions. We begin by addressing the first question, "What dilemmas does the involvement of SVs in the official disaster response operation raise for professional emergency responders?" The *first* dilemma was that the disaster created an urgent need for volunteers, yet the extreme situation and limited resources made it difficult for professionals to assess SVs' individual crisis resources and legitimacy. The *second* dilemma was that professionals expressed a need for help from SVs to manage the disaster but also considered their involvement to be potentially risky. The *third* dilemma was how to respond to SVs' wish to participate in the OR, even when they were not required, this would create work, and pose risks in terms of accountability. The *fourth* dilemma was that professionals desired self-organizing volunteers, but such autonomy could lead to risks for SVs, as well as for others, and hinder efforts in the OR. The *fifth* and final dilemma was that despite the need for resources from volunteers, professionals were worried about the financial costs these would incur.

With regard to the second research question, "How can these dilemmas be explained in the context of the extreme situation and multiple institutional logics within the organization?", we suggest that the dilemmas and associated discretionary reasoning were influenced by the context and institutional logics (professional, citizen, bureaucratic and market) embedded in the emergency organization. By analysing the findings in the light of multiple institutional logics, diverse frameworks of understanding and alternative actions became visible, in addition to "what is lost and what is gained" (Blomgren & Waks, 2015, p. 81) depending on which logics were prioritized. We propose that conflicting logics contributed to dilemmas but also that individual agency became evident in the professionals' different interpretations, considerations, and priorities, which prompted different actions. Moreover, a main finding was that not only did drawing on diverse logics provide different perspectives on collaboration with SVs, but professionals could also draw different conclusions from the same logic (Table 1). In other words, equally important as *which* logics were used was *how* they were used.

The analysis also shows interesting differences in how professionals on a higher strategic level tended to stress professional and bureaucratic logics and expressed greater caution about SVs, while professionals in closer personal contact with SVs tended to rely on citizen logics to justify their inclusion. There were also changes over time in the logics used to justify actions. For example, professionals on higher strategic levels tended to move from professional logic ("the quality isn't assured") and bureaucratic logic (no time to register and organize them) for excluding SVs at the beginning of the operation to a compromise between citizen, professional and bureaucratic logics as justifications of inclusion of SVs by finding safer ways to do this and using voluntary organizations as an intermediary.

Limitations

The findings come with some limitations. First, they are based on a qualitative study in a specific context. However, the analytical framework—professional discretion related to dilemmas and institutional logics—may be analytically transferable to other cases (Danermark et al., 2019). Regarding the empirical results, previous research on disaster management in different contexts shows similar findings, for example, concerning professional ambivalence towards SVs based on their potential contributions, legitimacy and the risks associated with the operation (Barsky et al., 2007; Fernandez et al., 2006; Harris et al., 2017). However, the relevance of the dilemmas in our study for the management of other disasters in different contexts is left for future empirical studies. A second limitation is that the professionals' retrospective reasoning in the interviews does not reflect the professionals' actions during the actual disaster in a straightforward way. A fruitful direction for further studies in disaster management would be to focus on how professionals act on dilemmas and constructively manage and negotiate compromises between multiple conflicting logics (Oldenhof et al., 2014).

To conclude, disaster management is currently experiencing a participatory turn. Collaboration with volunteers is perceived as crucial, and professionals' actions affect both the adequacy of the response and the legitimacy of the OR (Schmidt, 2019). Limited resources in emergency organizations, participation by private companies, reduced collective organization in traditional NGOs, increased convergence of SVs, and the accountability of ORs for overall management all create conditions that professional responders must manage in combination with the extreme workload associated with disaster management. The complexity is vast and the imperatives for the professionals are more of everything; more collaboration with citizens and private companies which tends to increase uncertainty about control and responsibility, but paradoxically also more bureaucracy and accountability. As one interviewee commented, "I think the voluntary movement has come to stay. We just have to find the structures for it now" (SL29).

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Author's contribution

Sofia Persson and Sara Uhnoo collected the data. Persson developed the theoretical framework and research questions, performed the analysis and wrote the first draft of the article. Both authors reviewed the final draft of the article before the submission.

Conflict of interest

The authors declare that there is no conflict of interest.

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[i] In the fire and rescue service in Sweden, fire engineers and firefighters are the main occupational categories. Fire engineers have a university degree, often strategic positions within the

organization and can be regarded as professionals based on traditional criteria such as academic education, organization etc. The firefighters fall into two categories: those who work full time and have two-years of training, and part-time volunteer firefighters who have six weeks of training. Firefighters often have operational functions within the organization.

[ii] In this article "professional emergency responders" is used interchangeably with "professionals" and "professional responders".

[iii] Retroduction is a thought operation containing reconstruction of the basic conditions (mechanisms and structures) for the phenomena to be what they are (Danermark et al., 2019).