

Organizational culture and societal safety: Collaborating across boundaries.

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Abstract: We discuss how cultural boundaries between groups and organizations can affect societal safety. Societal safety is an issue that challenges institutional structures and requires coordination and collaboration among a diversity of groups and agencies toward an intangible goal. We examine three cases of collaboration problems and cultural stereotyping: 1) between sectors (two agencies with different responsibilities on a national level), 2) between regulatory levels (the approach to risk on a national level and practitioners in rural municipalities), and 3) between professional groups (operational police officers and more strategically-oriented personnel). We address culture as a phenomenon operating at the boundaries between organizations or groups of practitioners. By addressing the ways culture is actualized as a boundary phenomenon, we move beyond essentialist understandings of culture and elaborate a relational interactionist understanding, with implications for practice.

Cultural differentiation is an important (but not the only) explanatory factor in problems of collaboration. Organizational and professional cultures are made relevant where there is friction among groups through processes of stereotyping. Societal safety is created in networks of professions, communities of practice and informal relationships that are infused with values, interests and power, making cultural boundary processes an important and priority topic for safety research. These are insights that are underplayed in research, policy and practice on societal safety. We conclude that the building of societal safety needs to be based more on meso-level organization development in addition to the traditional approaches of macro-level policy development.

1 INTRODUCTION

The relationship between organizational culture and safety has been a key topic of safety research for more than three decades. This research has provided valuable insight into the way organizations deal with conflicting objectives and the informal norms that guide safety-critical work and decision-making. The main emphasis has been on intra-organizational or intra-group traits and processes (Antonsen, 2009). In this article, we expand the scope of analysis to the cultural dynamics among organizations and groups. We investigate how organizational culture and perceived cultural differences influence coordination and collaboration among agencies

and departments involved in societal safety and security and emergency management.¹ Employing an interactional rather than an essentialist understanding of culture, we explore the boundaries between different groups as well as the related cultural processes on these boundaries. Thematically, our discussion contributes to explaining and understanding problems regarding inter-agency collaboration in the efforts to create societal safety (e.g., McConnell and Drennan, 2006; Christensen et al., 2015) by analyzing the cultural dimension of interaction and by inspecting the differences in professional practice across them.

The term societal safety requires some explanation. It is a translation of the Norwegian word "samfunnssikkerhet" and covers a wide range of issues related to public security and civil protection. In official documents, it is defined as "the society's ability to protect itself against, and manage, incidents that threaten core values and functions and that put lives and health in danger. Such incidents may be caused by nature, by technical or human error, or by intentional acts" (White paper 10: 2016-2017, p. 8). It follows that this definition covers causes related to both safety and security, and includes activities related to prevention, preparation and response.

The backdrop and case study focus of our paper is as follows: On 22 July 2011, a lone right-wing terrorist conducted two terror attacks in Norway. He first detonated a van filled with explosives in the government district, killing eight, severely injuring nine, and causing severe damage to several government buildings. Immediately thereafter, the perpetrator went to the island of Utøya about an hour's drive outside Oslo. His target was a youth camp for the Norwegian Labor Party. With a semi-automatic rifle and a pistol, he killed 69 and injured 66, mostly youth in their teens and early twenties. The severity and cruel nature of these attacks shook the foundations of Norwegian society. The attacks represented an unprecedented break in a normalcy characterized by calmness, social trust, and peace in Norway in the last decades. The events also inspired widespread critical reflection on the organization of the agencies involved in maintaining societal safety and security in Norway, particularly the police. The attacks shifted institutional weaknesses regarding the Norwegian public sector in general and regarding societal safety in particular to the public agenda. The 22nd of July events represented two different types in this respect. The shootings at the Utøya island were of an unexpected kind, something few could imagine, while the bombing of the government district was a well-known risk. Preventive measures had been identified, but implementation lagged behind. While some crises and incidents may be "epistemic accidents" (Downer, 2010:725) in the sense that they reveal gaps in our knowledge, crises more generally vary in terms of how predictable and how manageable they are (Gundel, 2005). This means that they also, as objects for collaborative prevention and preparation, present different challenges.

The subsequent investigations, particularly the Gjørsv Commission's report (NOU 2012:14, p. 14), revealed new—and highlighted several known—weaknesses in the involved institutions and agencies. The list of issues noted by the commission was long (see Nilsen et al., 2015 and Nilsen et al, this issue for more). Among the most prominent were shortcomings relating to inter-agency and cross-sectoral coordination. This paper is based on a research project investigating societal and organizational learning processes after the 22 July 2011 attacks and

¹ For brevity, we refer to this as societal safety unless otherwise specified.

subsequent investigations. Specifically, we investigate cultural explanations given for the lack of collaboration between sectors and between different groups within sectors. The cultural boundaries or differences discussed here have materialized as patterns from our analysis of how the informants talked about others and themselves in our interviews on changes in the public sector in Norway after the 22 July terror attacks. While our interviews centered on change (and lack of change) after the terror attacks, the boundaries existed before and persisted after the attacks. They constitute part of the explanation of the inertia to substantial change in the organization of societal safety in Norway. The bounded dynamics between the groups should be seen as social characteristics that need to be analyzed in order to understand why the efforts to build societal safety succeed and fail. This organizational differentiation should not be interpreted as irrational resistance on the part of those concerned that can or should be replaced. To the contrary, knowledge about boundary processes is important for change processes and the successful implementation of improvement measures.

Our paper explores how cultural differentiation influences collaboration in the efforts towards realizing and upholding societal safety. We argue that better understanding and addressing inter- and intra-organizational cultural differentiation is necessary to deal with the coordinative challenges in societal safety.

2 BACKGROUND: CROSS-SECTORIAL COLLABORATION IN SOCIETAL SAFETY

One overall diagnosis from the 22 July commission's report was the need for changes in "attitudes, culture and leadership" (NOU 2012:14, p 456 our translation). This diagnosis lifts the dynamics of organizational culture to a societal level, making the interaction between different cultural units an important piece of the puzzle. The commission left a picture of an emergency preparedness landscape in Norway with severe difficulties regarding cross-sectoral coordination and collaboration. This resonated with similar observations in several investigations and reports, both before and after the event (NOU, 2000:24, p. 24; NOU, 2006: 6, p. 6; Auditor General, 2015). Based on the investigations, it is uncontroversial to state that there are persistent problems in inter-agency coordination and collaboration for societal safety in Norway. We employ "collaboration" as the joint practices undertaken in the borderland of groups or organizations. While these practices are hard to distinguish on the ground, one may say that collaboration suggests a higher level of integration, if not intense cooperation, while coordination refers to the management of the intersection of separate or otherwise bounded activities undertaken by different agencies. (See Læg Reid et al, 2014; See also Boin and Bynander (2014).² Collaborating toward the elusive goals of societal safety and emergency preparedness across institutional boundaries in a silo-based public sector is notoriously difficult. In the literature on public policy and public administration, the issues are often described as "wicked problems" (see, e.g., Læg Reid and Rykkja, 2015; Christensen et al, 2015).³

² Collaboration always depends on some form of coordination, while coordination may not necessarily be collaboration.

³ The concept of "wicked problems" emerged more than 40 years ago (Rittel and Webber, 1973; see also Head and Alford, 2015) and is now a topic in many disciplines such as policy analysis, public administration, ecology, and economics. The term is used here to refer to challenges whereby there is a mismatch between organizational/institutional structures and the issue to be governed. In the case of societal safety, the key

Organizational structures are ill-matched for the activities needed to ensure safety and emergency preparedness, and it is difficult to identify the optimal solutions to the issue at hand. McConnell and Drennan (2006) propose that collaboration for crisis prevention is a “mission impossible,” while Roe (2013) argues that problems like these are policy messes that might be impossible to solve but must be dynamically managed.

New Public Management (NPM) and related organizational developments have implied a specialized and “production oriented” mode of organization in the Norwegian public sector (see Almklov and Antonsen, 2010; 2014; Antonsen et al., 2010 see also Gregory, 1995). Agencies frame their activities as specialized or otherwise commodified products and, organize to be efficient at producing visible output. In this way, the police, defense, and health officials frequently refer to their agencies’ “production” in the media as well as in internal reporting. This also has consequences for inter-agency collaboration: collaborating toward the intangible goal of societal safety across boundaries between silos with budgets, objectives, and accountability-structures becomes an uphill battle.

The wickedness of societal safety as a coordinative challenge, both in Norway and elsewhere (see e.g. Christensen et al, 2016), has fast become conventional wisdom. Boin and Bynander (2014) propose to distinguish the directed forms of coordination from coordination in the sense of collaboration, of people working together across organizational boundaries. Our discussion of cultural differentiation may contribute to explaining why coordination does not necessarily lead to effective collaboration. Importantly, though, while informal collaboration and improvisation is expected and accepted when a crisis has materialized, the motivation to go outside the normal workflow is more attenuated at the preventive stages.⁴

3 ORGANIZATIONAL CULTURE REVISITED – CULTURE AS A BOUNDARY PHENOMENON

As already indicated, societal safety and security involve a wide range of actors, both public and private, which means that the coordination of efforts has to cross organizational boundaries. In addition, organizations over a certain size have a horizontal division of labor and a vertical distribution of formal authority. They include a diversity of professions and communities of practice (Lave & Wenger, 1991). This in turn calls for a consideration of the role of culture in more complex, inter-organizational, and culturally differentiated settings: More specifically, it calls for considering the role of cultural processes in efforts to deal with matters of societal safety. We first briefly overview some of the literature on culture in organizations and then present the main inspiration for our approach to cultural differentiation drawn from anthropological theory.

ingredients manifest in the combined demand for inter-sectoral collaboration (between silos with internal regimes of accountability) toward an elusive goal fraught with uncertainty.

⁴ This was a main finding in a study of the process of municipal risk analyses, where public and private entities lacked incentives to contribute (Øren et al., 2016).

The concept of culture in organizational theory is in many ways a counterweight to more rationalistic accounts of organization, by stressing the organic, informal dimensions. Early approaches within organizational studies were inspired by the Tavistock school, and later, by the institutionalists (Alvesson and Berg 1992). The conceptualization of institutions has similarities to the concept of culture often used in organizational studies. Selznick (1957) described institutions as integrated and historically constituted practices and institutionalization as the dynamic process where these practices is maintained and altered. Selznick's work was an important predecessor to the concept of organizational culture in two different ways. First, by acknowledging the fact that organizations are not only expressions of rational, goal-oriented actions – they are organic systems strongly influenced by the social characteristics of their participants. Second, by highlighting that organizations are infused with values in the sense that they embody a set of values and a distinctive identity (Selznick 1957, Scott 2001). These perspectives have later been further elaborated and expanded by the neo-institutionalists, underscoring the relationship between institutionalization processes within organizations and their external environments (e.g. Meyer & Rowan 1977, Meyer and Scott 1983, see also Christensen et al., 2007). To telegraph ahead, we will see that issues of culture, particularly the way cultural stereotypes operate on boundaries between groups with different interests and perspectives, become a central topic for our analysis of collaboration in and among organizations working with societal safety.

In the literature on organizational culture, much discussion has been and continues to be devoted to the relationships among three main theoretical perspectives: with slight simplification, the integration, differentiation, and fragmentation perspectives (e.g. Martin 1992; see also Antonsen, in press). Integrative studies of organizational culture have been dominating, according to Alvesson and Berg (2013) among others, within organizational studies. This understanding of culture runs the risk of overlooking the differences among groups and the way culture is manifested in social interaction.⁵ The key issues in this debate relate to the question of “sharedness”: Are organizational cultures better characterized by consensus, clarity, and consistency, or by different groups in organizations with conflicting interests, conflicting interpretations of cultural expressions, and different identities? While few disagree that organizations are arenas of conflict, power, and ambiguity, great variation still exists in the ways culture is defined, the units of analysis studied, and the methodological approaches used. The debate is not repeated here, but we extract an important, albeit implicit, part of this literature: The relationships between integration and differentiation highlight the construction of boundaries between groups⁶. Our analysis is based on a differentiation perspective on

⁵ Johannessen (2013) conducted a review of the limited research literature on "police culture" in Norway, arguing that culture was depicted as something static that individuals possess in an organization. Johannessen found this to gloss over the complex and dynamic organizational processes that make up everyday concrete practice taking place in an organization and that there was more to gain from delving into differences than searching for similarities.

⁶ In addition to the integration and differentiation approach to organizational culture, a third perspective, the fragmentation approach, also exists in the literature. This perspective focuses on within group variations in the interpretation of cultural manifestations, contextual determination of behaviour and criticizes the oppositional way of thinking that permeates studies of integration and differentiation (Martin 1992). We certainly agree with fragmentation theorists (and many other organization theorists) that ambiguity, complexity, paradoxes and

organizational cultures. The rationale behind this is that when examining the role of organizational cultures in achieving societal and not only organizational goals, we see that culture becomes relevant on the boundaries in the stereotyping and explanation of collaborative problems.

Let us now turn to the notion of culture from the differentiation perspective adopted for the following analysis. Culture is both “out there” in the public and “in there” as manifested in cognitive patterns (Shore, 1996). Shore proposes several typical models and scripts found both in cultural symbols and habitual ways of the mind in organizing the world around us. It is layered patterns in our publicly shared symbols, art, language, in the structuring structures of discourse and in layers of cognitive schemas and models. It is reasonable that culture, understood in this way, is to a large degree shared across the organizations in our data. All of our informants are Norwegian. They also have other common traits. However, the cultural matters of concern for our purposes are patterns in how informants perceive each other, how they make sense of differences, and how they produce them. Shore’s conception of culture is useful, not only because it captures the duality of culture as cognitive and publicly shared, but also because it allows for a discussion of difference in groups that have a lot in common in terms of more foundational cultural traits. The different stereotypes we discuss among groups of professionals in the organizational landscape involved in societal safety in Norway are cultural differences manifested in specific settings among people who still share many foundational cultural traits.

Fredrik Barth (1969), in his introduction to *Ethnic Groups and Boundaries*, argues for a focus on the processes that generate ethnic boundaries and that lift seemingly trivial differences to the forefront as markers of group boundaries. While Barth’s publication has had a tremendous influence on the study of ethnicity and culture within social anthropology, the key insights of Barth and his colleagues, the processual and non-essentialist approach to culture, have not been utilized in organization studies to the same degree. Barth was influenced by studies of changing ethnic allegiance (e.g. Leach, 1964), which showed that the constitution of ethnicity was situational and made relevant in special situations when groups of people experienced that they had some common interests, sometimes in competition with other groups. This led to the insight that ethnicity becomes actualized in particular situations and is rendered insignificant in others. In this sense, ethnicity is chosen and situational, and culture is not a stable entity. Along the same line and equally significant, Tambs-Lyche (1976) argues that the construction of the “typical other,” or what he labels as stereotypes, is an important aspect of the border-marking process. While the topic of our study is not ethnicity, the cultural stereotypes about others are highly relevant for organization studies. A stereotype is a socially constructed image composed of certain signs and symbols that are attributed as properties of a group of people.

Stereotypes appear in pairs and their pairwise nature is, as we shall, see core to our methodology and analysis. Assume community A holds stereotypes of Community B, and Community B holds stereotypes of community A. By extension, does a community of “firefighters” hold

fragmentation effects characterize many organizations. Our data is, however, riddled with examples where the informants *themselves* invoke differences between groups, making a differentiation perspective the right analytical lens.

stereotypes of, e.g., “police officers,” and vice versa? The process implies that “the others” are attributed qualities, represented by comparatively easy-to-recognize signs such as a typical dress code, terminology, way of talking, and typical statements. The process of border marking does not necessarily imply a hierarchy of rank between groups, but hierarchies are often present in social situations and do have an impact on the identification process. Formal hierarchies based on responsibility and authority in a company are frequently accompanied by informally constituted hierarchies between formal or informal communities.

Members of an organization hold a portfolio of overlapping identities that are mobilized in different interactional situations. In a formal organization, the communities may coincide with formal work groups in the organizational design, though this is not always the case. Borderlines between identities may also constitute communities and activities of belonging that run across the formal design of an organization, e.g., “the workers” or “the engineers.” Such distinctions can also be found between professional groups within organizations. A typical example of this is doctors and nurses, groups that interact closely within one organization, but between which professional boundaries are continuously maintained (Håland, 2012; Fournier, 2000). Group identity and boundary processes between professional groups, or communities of practice (Wenger, 1998) more generally, are important informal aspects of organization.

In our approach to interactional situations leading to or reinforcing stereotypes, we focus on the construction of “we” and the “others” and the corresponding bordermaking process. The structural or professional differences might not be major, but are reinforced by stereotyping as groups interact. To be clear, we are not focusing on all organizationally related identities that individuals and role-holders have, but rather an important subset, those relational identities of the “us” as distinct from “them” variety. The very notion of “we” presupposes both a boundary delimiting a group from its surroundings and a conception of the people located on the other side of this boundary. This is, for instance, quite visible in Schein’s widely cited definition of culture as “a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration” (Schein, 1992, p. 18). The separation of internal and external functions of culture illustrates that although culture is, by definition, an integrative concept referring to something shared among the members of a group, it is also a boundary phenomenon that involves the construction of differences between “us” and “others.” We employ the term “boundary processes” to refer to practices and negotiations in the interstices of groups with different frames of reference, areas of expertise, language and method conventions. Since societal safety depends on the coordinated efforts of a large number of organizations, the study of boundary processes is of the utmost importance.

4 METHODOLOGICAL DISCUSSION

In the study of complex social-scientific concepts like culture, there are strong links between ontology, epistemology, and methodology: What is taken to exist in the world (ontology) influences what can be known (epistemology) and how we can go about gaining knowledge about it (methodology). Consequently, the theoretical underpinnings described above have implications for research methods as they involve both ontological and epistemological standpoints. We see culture not as an objective “thing”, but as a socially constructed

phenomenon taken as real for human beings engaged in social interaction. The term culture thus refers to often taken-for-granted phenomena that are difficult or otherwise elusive to access methodologically. Anthropologists, usually preferring a holistic definition of culture, spend months and years immersed in a society to seek to understand it from the inside, including its non-discursive aspects. Studies of organizational culture or safety culture are typically based on less immersive studies, for example, on shared norms and values evidenced in time-specific interviews or surveys.

Our study is based on interviews with 67 managers, analysts, and operative employees within ministries, directorates, counties, and municipalities. The interviews lasted between 45 minutes and 1.5 hours and were digitally recorded and then transcribed. The coding of the interviews was done by means of HyperResearch. The initial coding was based on theoretically derived categories, notably the following:

- The way in which informants expressed prioritizations among different sources or areas of risk;
- The way in which informants described relevant problems and perceived viable solutions;
- The way they described collaboration and communication with different actors in the field of societal safety;
- The way they described and attributed properties and themselves (“us”) and other actors in the field of societal safety (“the others”); and
- Power struggles among different agencies and areas of responsibility.

The analytical strategy undergirding the methods was inspired by grounded theory (GT) (Glaser and Strauss, 1967). We use “inspired” since our analysis was based more on existing theoretical concepts than is usual in the more orthodox variants of GT. GT is an analytical approach directed at conceptualizing latent patterns (“theories”) in qualitative data material. It is, in one sense, an inductive approach in that theory/concepts/models are to emerge (be grounded) from empirical data. The approach was originally developed as an alternative to the deductive approach in which theories, concepts, and models are tested against empirical data. The key logic of GT, however, lies in the interchanges between induction and deduction. It involves the following basic steps:

1. Open coding of interview data. The aim here is to identify the main dimensions of the data. For us, this involved coding each document within the thematic scope described above. The theoretically derived categories were not to serve as an analytical straight jacket. We expected new or refined codes to emerge both within and outside the theoretically derived categories.
2. Concept development. The codes were then related to each other. We aimed for concept development by looking for a class of codes that could be grouped into a coherent description that conveys a finding.
3. Testing the validity of these concepts in further analysis of the same data. Glaser and Strauss (1967) call this the “constant comparative method,” whereby the analyst alternates between generating hypotheses from data and “tests” these hypotheses against the data.

Our study is based on a high number of interviews, and the number of different groups and organizations involved is also high and heterogeneous. This means that while we cannot say anything final and definitive (as more longitudinal field works in each group would do), we are able to address that identifiable phenomenon of “*something cultural*” (variously defined by interviewees below as “*esprit de corps*”, “*loyalty*” as well as engrained practices and as culture outright) in the interaction between these groups and the implications for the elusive notions of societal safety and security. We argue that our approach is both methodologically sound, as we follow our informants’ accounts of cultural differences, and in line with anthropological theory on the importance of narratives of the other in constituting boundaries and notions of oneself. More generally for our purposes, we identified patterns in how our interviewees think and talk about themselves and others, and these patterns are traces of culture, emerging when discursively pertinent to those talking. Culture consists of much more than these discursive patterns, of matter that is not made explicit by interviewees. Importantly, verbal reflections of culture by our informants tend to emerge when there is friction and conflict, and in this way our methodological approach draws attention to challenging aspects of cultural difference.

This understanding of culture has a critically important implication for the study of *safety culture*: Safety culture should not and cannot be seen as “part” of a culture identifiable and demarcated before empirical study of the interactional situations in which it is constructed and reinforced. Authors (e.g., Hale, 2000; Antonsen, 2009) contend that safety culture is a conceptual label for the relationship of culture and safety, implying an analytical distinction between 1) the study and description of culture and 2) the possible consequences of cultural traits and processes on safety. While we know from previous studies that some cultural traits and processes (e.g., trust, open communication,) have proven beneficial for safety, we cannot identify in advance that these will have the same relation to safety in each organization or pertinent situation of interaction. What can be identified in advance is a high-risk setting, i.e., systems, operations, or activities involving a potential for serious negative consequences for people, assets, or environment; however, identifying the cultural processes that influence safety is a logically and empirically prior question, thus making a more expansive approach necessary. We identified three boundary processes that were strongly manifested in our data.

5 CULTURAL DIFFERENTIATION AND COLLABORATION

The following sections discuss three boundaries of cultural differentiation with relevance for societal safety based in and identified from our case study.

First, we discuss the differences between the safety and security communities. Second, we discuss the perceived cultural boundary between professionals at the national level and rural municipalities. These are both boundaries that, to varying extent, overlap with organizational or institutional boundaries. The third boundary demonstrates more specifically the cultural differentiation between operative and more analytically and strategically-oriented personnel in the police force. These three boundaries emerging through different pairwise comparisons are clearly visible in our material. They are based on a combined analysis of all interviews, including with outsiders to the differentiation processes themselves (e.g., people from other

parts of the justice sector discussing differences within the police), and they are also discussed explicitly with key informants. As such, few in the field of societal safety would dismiss the relevance of these boundaries. In the following we discuss how these differences manifest themselves, and the way the cultural differentiation between groups influences collaboration related to societal safety. In that well-known distinction among integration, differentiation and fragmentation perspectives on organizational culture, our emphasis is on differentiation. To repeat, the differentiation perspective is crucial for understanding collaboration processes toward goals and purposes that straddle organizational boundaries.

5.1 SAFETY AND SECURITY

In the Norwegian language, both the terms safety and security are commonly translated into the same word “sikkerhet.” This is apparent in the way in which Norwegian public documents use the term societal safety (“samfunnssikkerhet”) as an umbrella concept covering issues of both safety and security. The stated aim is to create a holistic approach to risk management—which, however, comes at the expense of increased need for and costs of inter-sectoral collaboration. The agencies responsible for matters of safety (e.g., the Directorate for Civil Protection) have a strong need for exchange of information with the agencies responsible for matters of security (e.g., the Police Security Service and the National Security Authority), both in order to monitor the level of risk and for matters of emergency preparedness:

We [the Directorate of civil protection] want to collaborate with them [the Police Security Service] to develop the national risk picture, but they keep telling us “no.” Right now, they refuse to say anything about probability. They are talking about intentions and capacity. We keep telling them that to be able to make a risk analysis, we need to look at [...] not only whether someone is going to carry out an attack, but also what the consequences would be.

Interviewer: Perhaps there is not that much of a tradition to think in terms of probability in the security world?

No. It has gotten to the point that there are two Norwegian standards on this area, regarding vulnerability and risk analysis. You have the same word but a different definition, depending on whether you are referring to intended acts or not.

The informant pointed to three important lines of division that cut across processes of risk management in the Norwegian public sector. The first is the illustration of the practical consequences of the fact that any two groups will have different connections regarding the meaning and reference of the term “safety.” While there are both nuances and ambiguity in the use of the term “societal safety” among informants within the Ministry of Justice and Public Security, they have a common core understanding of the term. Intelligence agencies like the Norwegian National Security Authority prefer to address “national security” as much of their work is based on the “security act.” For them, the term “societal safety” likely refers to matters of security, while other parts of the justice sector use the same term to refer to matters of safety. While the lack of complete congruence in how terms are used is a seemingly common aspect

of the relationship between two actors, it can cause serious problems for the exchange of information, which is crucial for cross-sectoral risk governance.

The second and related line of division has to do with differences in the methods and knowledge used to define, assess, monitor, and manage risk. From a safety perspective, the assessment of risk is very likely to include a consideration of the probabilities of the occurrence of an event and the possible consequences of the event. This is a more or less probabilistic way of defining and viewing risk. From a security perspective, the risk of an event is analysed more in terms of the existence of actors with malicious intent and the abilities and resources that enable these actors to cause actual damage. In fact, the concepts of risk and risk analysis have not traditionally been seen as very relevant to security studies (Petersen, 2011).

This means that there are substantial differences between the two groups in the way they view the nature of hazards, methods, and the competence needed to assess, monitor, and manage safety and security risk. These lines of division have proven to be a challenge in terms of creating more comprehensive risk analyses that cover both unintended and intended events.

The third boundary division can be described in terms of “institutional secrecy.” This term bears a strong resemblance with Diane Vaughan’s concept of structural secrecy, as “the way that patterns of information, organizational structure, processes, and transactions, and the structure of regulatory relations systematically undermines the attempt to know” (Vaughan, 1997: 238). On a societal level, several institutional mechanisms that are actively devised to serve as barriers for the flow of information. Consequently, information about security risks is classified at times. This need not very problematic when risk governance processes are conducted within delimited sectors or domains. When attempts are made to conduct more comprehensive risk governance, matters become more problematic. In Norway, the Directorate of Civil Preparedness publishes an annual “National Risk Picture” (NRP), including natural disasters, major accidents, and intended acts (covering aspects of national security). The aim is to establish a common risk picture that is valid across sectors and to highlight interdependencies and the need for collaboration. Mismatch between the need to know and the need to protect information could hamper the effectiveness of establishing a high level of societal safety and thus impair the level actually achieved. Interestingly, the informants themselves sometimes used the term “culture” to describe the boundary between safety and security:

I think [the security agency] make things difficult; they don’t get involved with others whatsoever. I think it is a culture or an attitude. These are very closed agencies. We see it as pretty extreme sometimes, how secretive everything has to be.

The term culture is used to describe differences and boundaries, not integration and sameness. Furthermore, it is used to describe problems related to communication and the flow of information, processes that have proven to be crucial in the ability to predict disasters (Turner and Pidgeon, 1997).

In summing up the way in which the borders between these two “camps” are actualized by the members of the communities, the dimensions in Table 1 serve as a coarse description:

Table 1. Summary of stereotypical differences between the safety and security communities

Agencies responsible for safety	Agencies responsible for security
Hazards in the form of unintended events	Threats in the form of intended events
Analysis of probabilities and consequences	Analysis of intentions and capabilities
Information needs to be shared	Information needs to be protected

It should be noted that the boundaries described here are by no means cultural only. There are structural, legal, and technological barriers that hinder (and are designed to hinder) the exchange of information across safety and security agencies. For instance, security-related communication is required to go through secure channels of communication where security clearance is needed to gain access. While most safety agencies in Norway share a more open platform of communication, cultural differences come into play and reinforce the more formal boundaries that exist by providing added justification to and amplification of the existing boundaries. When information is on a “need to know basis,” decisions regarding *when* information should be shared, *who* has a need to know, and *how much* they will need to know will be influenced by cultural boundaries.

5.2 CENTRAL AND LOCAL, FORMAL AND EMBEDDED

To those familiar with the Norwegian public sector, there is a clear distinction between central perspectives on societal safety and security and that found in rural districts. While the public sector, on a national level and in big cities, is bureaucratic and relies on formal structures, small municipalities in remote, sparsely populated areas operate in a comparatively more informal manner. These differences were also reflected and manifested in our interviews, where the descriptions of “others” for practitioners and public officials in the countryside and the “others” for the informants on the national level followed stereotypical patterns.

Throughout the interviews and the project generally we observed a boundary between informants with a more formal approach to risk and safety and those, particularly in the rural areas, with a more practical and socially embedded approach to safety.⁷ The bureaucratic demands for formal reports and a systematic approach to safety were lamented by the practitioners in the municipalities as overly demanding and impractical. This was the case in discussions of municipal emergency preparedness. A recent law places burdensome demands on municipalities when it comes to cross-sectoral risk assessments, emergency plans, and documentation. Public reports and media statements at the national level point to shortcomings in terms of the ability of municipalities to fulfil the demands for municipal emergency preparedness. In many small municipalities, the resources and competence required remain wanting. They have a more practical approach to societal safety and an approach to coordination that relies on personal relationships.

⁷ A similar difference in perspective was observed by Almklov et al. (2014) between practitioners and safety specialists in the maritime and railway industry. This was conceptualized as the “compartmentalization” of safety as a distinct domain of interest *vis-à-vis* the more embedded and practical approach of practitioners.

One informant from a directorate described the municipalities' lack of interest in risk:

[...] apparently, there is a significant acceptance of risk in Norwegian municipalities. They have this attitude that it doesn't happen on my watch and that if it does happen, we will be able to handle it anyway. And they perhaps haven't accepted through the legislation that we can always be *more* prepared.

The informant continued to refer to a case in which a municipality claimed that

they had handled an emergency in an excellent way even though they didn't have plans and had not had exercises, and so on. My point is that perhaps they could have done an even better job if [...] these things had been there as a foundation.

Stereotypically, the national level informants complained about a lack of interest in systematic views on risk management and proactive planning. They complained about how difficult it was to implement new methods and models in the municipalities due to the variations in size and organization and the high level of autonomy in the municipalities. In contrast, municipal emergency managers and some county level officials with close contact with them complained about the generic and bureaucratic approach to risk seen at the national level.

While the national level officials were focused on the formal roles of the personnel involved, many local level informants explained how they solved practical matters based on their multiple roles and connections in the community. Municipal public officials have a varied, if not differentiated competence and interest in societal safety. One official in a small municipality (incidentally a part-time firefighter and member of a volunteer rescue service, thus underscoring multiple roles) explained the importance of personal knowledge and relationships. The informant described how the management of a recent complex issue involving social services was made easier because key personnel were friends, even with two of them married. Along a similar vein, in an exercise arranged by the county governor's office, a missing red Volvo after a car accident was part of the drill:

We were supposed to gather and discuss this, but we knew who that was. There is only one red Volvo in that part of the municipality! So we called the neighbors and asked if they had seen it.

The interviewee continued: "If we need an excavator, we call the guy who has that. We don't need an emergency plan for that!" S/he went on to describe that their current plans did not fulfil the ambitions of the central authorities in terms of "long-term goals, strategies, prioritization, and plans for societal safety" and contrasted the desire for more documentation with their own local struggle to get funding for an emergency back-up generator.

The county governors' emergency managers are middlepersons or translators on the boundaries between municipalities and the national government. These individuals balance on one hand their role as facilitators and partners for the municipalities with which they interact on a day-to-day basis and, on the other hand, their role as representatives of the national authorities and as the official auditors of the municipalities' plans and documentation. Thus, most of them have a good understanding of the practical nature of work in the municipalities, while also

representing the more systematic approach to societal safety. In one of the group interviews, an informant discussed a municipality that had handled an incident in an “excellent way.”

But they didn't have documentation! That is often the problem in a small municipality. They can't document everything they do, but they have the overview and capacity to handle the execution [of societal safety activities].

Another informant, however, added:

That is a strength the small municipalities have. They know the local population and the local environment.

Local officials talked about the national emergency officials as more interested in high-profile, major events, while the municipalities were more concerned about their vulnerability, robustness and general resilience (rather than which specific events that challenges it) along with general preparedness. One informant on a county level illustrates the point:

The analysis department in the directorate thinks of sun storms, sexy things like that [...] But for a municipality, such things mean that they might not have a phone and can't send a warning. But it's the same thing that happens if the power is out or the road is gone or there is an avalanche. They just make a generic plan and handle the incident.

The demands on the municipalities in terms of inter-sectoral coordination are high as the law requires that societal safety officials monitor and manage all major risks in their municipality. However, within the municipality, inter-sectoral coordination issues are not seen as problematic in the same way. In the words of an informant: “[Inter-sectoral] coordination is to a very large degree part of the culture in the municipality.” “The problem is,” this interviewee continued, “when they need to collaborate with external national level agencies and private businesses.”

While this boundary emerges and manifests itself most visibly in the discussions between municipalities and their national level counterparts, it is also evident in the context of other services, as a more general center-periphery difference within the emergency community. Within the fire and rescue services, similar cultural differences are seen between the typical municipal fire and rescue service in the countryside, which relies on part-time personnel, and large fire departments with professionalized full-time personnel in and around the cities. With new technology and a tendency toward larger services, there is a trend toward the professionalization of the fire departments and increasing specialization and weight given to formal documentation. The value of local knowledge and personal networks, in terms of dedication to the local community contrasts with the more standardized practice, which is based on formalized competence, in the current debates on ongoing changes in this sector as well.

The municipal actors were typically described as deeply situated in interpersonal networks, a multiplexity of roles and they were largely conducting their work through informal ad hoc collaboration. Coordination with external actors relied heavily on personal trust-based networks, either as a part of their role as emergency professionals, but often as well on the roles they had as members of a community. Their national level counterparts were regarded as bureaucrats preoccupied with formal roles, standardized reporting and analytical methods.

Where the bureaucrats were frustrated by the municipalities lack of structures for formal accountability, the municipal emergency managers stressed their personal, continuing sense of responsibility for the community as more important. For the professional on a national level, societal safety was a separate field of expertise, while the municipal practitioners viewed it as something engrained in their practice. We saw a distinction between the uniplexity of roles that a bureaucracy is built around meeting a practice in which the multiplexity of roles was seen as an important resource. They knew more, and had more resources to draw on, than what their formal role prescribed, and expressed frustration that this was not visible to the national authorities.

By way of illustration, one informant described a case where s/he needed to coordinate with the health and social services, led by the informant's spouse. They also described how memberships in hunting groups and volunteer NGOs or roles in the part-time fire department helped organize searches or emergency responses, and how their personal knowledge of local industries and farmers was pivotal in mobilizing machinery. To summarize, the borders between these two "camps" as actualized by their respective members are categorized in Table 2 by way of a coarse description:

Table 2. Stereotypical differences between national and local practitioners

National level	Small rural municipalities
Bureaucratic	Informal organization
Compartmentalized view of safety	Safety a part of practice
Risk	Vulnerability and robustness
Transactional coordination	Relational coordination/collaboration

More formally, when our informants discussed the differences between the (stereo-)typical national and municipal modi operandi regarding societal safety, there was a distinction between two discursive perspectives and two different approaches to societal safety. This was a boundary that was *recognized* by most or all of our informants, but it was not necessarily respected in the sense that people uniformly chose one perspective on the basis of where they work and live.

5.3 OPERATIONAL AND STRATEGICAL GROUPS WITHIN THE POLICE

Cultural differentiation processes are also found within large sectors and organizations. Within the police and the directorate managing the police, several informants pointed to a dominating core of "operational" culture within the police, characteristically associated with the uniformed emergency response units on duty. These were portrayed, in contrast, as the "others" by more analytically and strategically oriented personnel, including investigators, crime analysts, emergency planners, and those working with preventive police work. We refer to this diverse group, those outside the dominant core, here for simplicity, as strategically oriented.⁸

⁸ In his analysis of the Norwegian police, Johannessen (2013) distinguishes analytically between four different practices; operational, bureaucratic, trade union and academic practice. Our use of the term strategically oriented

Operational officers have a high status in the police and are seen by themselves and others to represent a traditional police culture. The cultural boundary in this case is between the core police culture, typically the operational officers and managers with extensive operational experience, and the officers and non-police professionals in more analytical or strategically oriented roles, illustrated in Figure 1. This is not a symmetrical boundary, as we discuss below. The identified cultural boundary delimits a dominating group, stereotyped by and stereotyping outsiders to the core operational culture in the police.

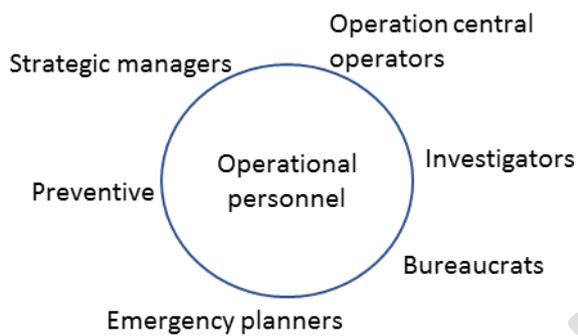


FIGURE 1 OUTLINE OF THE BOUNDARY BETWEEN THE OPERATIONAL GROUP AND OTHER ACTORS IN THE POLICE FORCE

Discussing changes after the 2011 terror attacks in interviews, several more strategically-oriented personnel pointed to what they saw as a recalcitrant traditionalism of the operational culture as a cause of inertia and shortcomings in modernizing the police and that the conventionally high status of this group even hampered advanced operational strategies.⁹ The operational officers, on the other hand, resented what they perceived as an increasing interference by “clerks” – non-operative police officers and non-police professionals, often seen as a general group.

The distinction between operational personnel and strategically oriented personnel was apparent in our sample of interviews throughout the formal hierarchy of organizational units, from the local police district to the central Ministry of Justice. The variation as to whom the informants portray as “the others” overlaps with what they recognized and regarded as the main problems and challenges within the police. The same differentiation can be found with regard to the measures the informants saw as necessary in order to deal with weaknesses in the handling of the 2011 terror attacks. The operational group tended to be oriented toward shortcomings in terms of lack of technical equipment, such as communication systems and helicopters, limited manning resources in the sharp end, a lack of object security, and the

to denote a specific group of “others” and “us” partly overlaps with the practice Johannessen (2013) denotes as “extended operational”, i.e. a practice related to those who are responsible for investigations. The “others” and “us” included in the situational constituted group we label “strategically oriented” also includes, however, those who work in intelligence and analysis, which Johannessen (2013) associates with a separate practice, denoted as “academic”. His four practices do not coincide with the borders that are reflected and manifested in our empirical material, and in the local terminology about “us” and “them”.

⁹ In an analysis of the police response on 22 July Bye et al. (2017) argue that that too much discretionary power had been given to the operational officers on-site, that operations suffered from poor information management, and that poor integration of staff-work in operational decisions was an important reason for the police’s failure to respond effectively to the events. The operational focus, which works fine in most situations, made it hard to react adequately to a complex challenge as these terror attacks.

necessity of arming the police. The strategically oriented, in contrast, complained about the lack of analytical orientation in the force and failures to implement evidence-based organizationally oriented strategies and approaches, the lack of a focus on intelligence gathering and investigation in daily policing, the lack of adjustment to societal changes, and limited interest and resources regarding preventive measures. As such, these professional groups instantiated different problems and different solutions in the police.

Informants invoked the concept of culture to describe a form of inertia and resistance to change. Some of the strategically-oriented ascribed the police's problem in managing change to the "police culture" and the perceived hegemony of operational work there. According to these informants, "police culture" is predominately rooted in task operations, e.g., oriented toward the tasks of preparedness and response as a part of police patrol, as the tasks of an on-site incident control officer, or as the tasks of a member of the special emergency task force (Delta Force). Thus, the "real" police work is done in proximity with the hazardous and complex situations the police encounter. The high informal status ascribed to this work coincides with more formal expressions of status, notably pay checks and career development. Some informants noted that police officers prefer to apply for operational positions rather than positions in departments conducting analysis, intelligence, and investigation. The current wage system implies that operational positions are more financially rewarding due to overtime regulations and specific categories of additional compensation.

Everything operative has a high status in the police. (...) While in other countries, it may be the opposite: that it is the investigator who is the hero, in a way.

This "police culture" was regarded by some informants as a consequence of recruitment criteria and an alignment process at the police academy that leads to an "esprit de corps" with clear norms for what it means to be a good police officer and what was important to aspire toward. Some claimed that the police academy mainly recruited young people with interests that were more compatible with practices associated with operational preparedness and response. An experienced investigator stated:

And it is cooler for those youngsters, cooler to drive a police car and shoot a gun and all that. It attracts the most engaged people, the most ardent people. (...) A good example of that is if you look at the number of applicants for operational positions in [the police district] versus the number of applicants for investigative positions.

One claimed that the years of training at the police academy established and strengthened the ties between students of the same class, establishing a network of loyalty rendered important for a person's career opportunities within the police force. One informant claimed that this culture reproduced itself by the practice of recruiting candidates who were already aligned with established norms and expectations.

[...] in operations, you have a mentor solution whereby you are accompanied by an adult policeman or policewoman who will train you while you are a student and while newly hired. So, they strongly impose on what is within the culture and what is right and wrong.

Several informants who worked with analysis, intelligence, or investigation complained about the lack of influence and a general marginalization of their specializations within the justice sector. This perceived marginalization was also explained as a consequence of that “police culture” and the power and status of “operational people” within the sector. One interviewee claimed that the police had an “anti-intellectual culture,” whereby statements backed by reputation and “experience” from operational policing were deemed more valid and trustworthy than statements supported by evidence on its own.

Also, there is the notion from a sort of an anti-intellectual culture in which you perceive [the police directorate] as bureaucrats and academics who sometimes try to interfere. And it is partly because of this that the directorate, for various reasons and probably in different contexts and forums, doesn't appear as credible. And in the police, credibility is very central.

Outsiders to the dominating core do not regard themselves as one group but still share a common feature, in that, they are defined and define themselves as being outside the dominant operational culture. Our operational informants, on the other hand, contrast themselves with non-police professionals and bureaucrats in quite general terms. In the interviews, they describe a continuous process of shielding their practice community from changes motivated by benchmarking or other forms of analyses and strategic initiatives from the police directorate.

This boundary process also includes an informal hierarchy related to influence, competence, and status. Informants belonging to the group we label as "strategically oriented" tended to portray themselves as “underdogs” within the police with limited influence, whereas informants belonging to operations tended to portray themselves as well experienced professionals who were restrained due to interventions, if not interference, from “non-professionals.” For them, more resources, such as better radios and helicopter service was what would improve their work. Asked about a centrally organized change program one lamented the volume of operational changes suggested from above: "It is so much that I really can't name them all. There are too many experts in a way." To this informant there are other concerns that are more important such as the low staffing levels and outdated ICTs. "But the ICT system is on a stone age level. We drive 160-170 km/h with a GPS the size of a cell phone."

There were other such examples throughout the interviews with operational officers. Generally, they wanted their outsiders to give more attention to better equipment, better support and more resources for their operational work, while they felt that initiatives intended to change their practice or organization based on strategic analyses or measurements of efficiency were often more of a disturbance.

The high status ascribed to operational work in the police force can be seen as a persistent cultural hegemony challenged by strategic initiatives from the directorate. This hegemony, in turn, exerts influence on the legitimacy of actors wanting to change the system. Change initiatives not anchored in the operational culture were questioned and met with resistance. Table 3 summarizes the pertinent differences of these two camps of interest in this section:

Table 3. Stereotypical differences between operational and analytically-oriented groups of police

Operational	Strategically oriented
On-site operational management	Staff work, information analysis, prevention, investigation
Experienced professionals	“Underdogs”
Experience and practical knowledge. On the job training	Analyses and strategical orientation. Academic
Problems in the police force: lack of technical equipment, lack of object security, arming of the police	Problems in the police force: lack of analytical orientation, lack of focus on intelligence and investigation in daily policing

6 DISCUSSION

6.1 WHAT ARE THESE EXAMPLES CASES OF?

Our three examples outline three modes of collaborative challenges in the Norwegian public sector. The first illustrates already well-known cross-sectoral collaborative issues: Two agencies with different mandates struggle to agree on how to represent and address issues where their responsibilities overlap. One group, the agency responsible for safety, is dependent on the receipt of input from the “others” in order to develop a specific analysis, the National Risk Picture. The other group does not depend on interaction with this group and sees the interaction as threatening to its responsibility as protectors of information and the handling of “important risks.”

The second case illustrates the collaborative problems between a central bureaucracy and local agencies. The first group focuses on systematic approaches to risk while the hands-on practitioners have a contextually-situated approach to safety. The central bureaucracy is supposed to support and ensure the implementation of standard services and working methods, whereas local practitioners are supposed to comply with standards. On the municipal level, the daily established practice is not dependent on support from the central bureaucracy. In their practice, knowledge and practical expertise are embedded in the interactive presence of local practitioners in the local community.

The third and last example shows that interactional boundaries with a clear cultural component can also exist *within* organizational boundaries.¹⁰ Here, patterns of differentiation can be observed between the operational community, with a strong *esprit de corps*, and the more strategically-oriented police officers and bureaucrats. The outsiders to the core operational group experience a lack of demand and interest in their services and expertise. This is explained through the construction of the stereotypical image of operationally-oriented police officers.

¹⁰ This would be no surprise to those who have studied professional cultures at hospitals where differences between professional cultures, typically nurses as distinct from doctors, are more pronounced than, for example, between hospitals.

To speak of an ethnic group in isolation is like trying to hear the sound of one hand clapping (Eriksen 1991: 129). In the same way, culture typically comes up in our interviews in the discussion of contrast towards others. The descriptions of groups given in tables 1, 2 and 3 must always be seen as relational. They reflect the construction and maintenance of cultural differences in the *interaction* between two groups and must be read in pairs, not as cultural inventories of the individual groups. To select one column from the table and say that this represents one group is, in other words, problematic and misleading, since relational stereotypes emerge as groups of practitioners interact. Boundaries are social constructs, separations drawn where differences make a difference. The tables and our descriptions of these boundary processes are our attempts at connecting the dots and drawing lines based on clear patterns of how we see informants describe themselves and others.

From a birds-eye perspective, our informants can be seen as a quite homogenous group culturally, typically middle-aged white Norwegian men. If we see culture as a totality of cognitive and symbolic patterns (Shore, 1996), our informants have much in common culturally. However, cultural difference becomes relevant as patterns in their descriptions and explanations of interaction with others. Common in these three examples of boundary processes is that the examples are oriented around the experience of problematic interactions. The interactional challenges triggers or reinforces the attribution of qualities to the “typical other,” which frames an image of the differences that serve as explanations or “causes” of the situational problems.

The three cases connect with classical sociological research traditions describing professional work in organizational settings (e.g. Blau and Scott, 1962), underlining the now longstanding finding that organizations are not the “rational creatures they pretend to be” (Scott, 2001: 25). Organizations are criss-crossed by professions, communities of practice and informal networks that are infused with values, interests and power. Again, these are insights that have been well-known within organizational and institutional research for half a century, but which are nevertheless underplayed in research, policy and practice on societal safety.

To reiterate, cultural stereotypes are not the cause of the aforementioned situations, or unilaterally caused by any situation; rather, they are intrinsic features of the relationships that need to be recognized and managed when collaboration across boundaries is required. Our examples, in other words, are cases of cultural differentiation arising in addition to structural challenges for coordination and collaboration. Consequently, tackling these issues, and navigating the policy messes and collaborative challenges of societal safety requires a strategy for dealing with cultural boundaries.

6.2 IMPLICATIONS FOR SOCIETAL SAFETY

Up to this point, the emphasis has been on describing the cultural boundaries that emerge prominently from our data, with little discussion on the relationship between boundary processes on the one hand and safety and security on the other. This was a deliberate choice and a natural implication of our theoretical and methodological standpoint. As there is no such “thing” as a safety (or security) culture (see Antonsen, 2009) that can be described independently of other cultural traits or processes, describing culture and understanding its

possible relation to safety requires separate analytical steps. In what follows, we explore the links between boundary processes and societal safety/security by connecting them to key concepts from the safety literature.

One obvious link between boundary processes and safety-theoretical concepts lies in Barry Turner's model of accidents, which is influenced by cultural norms and beliefs about hazards and caused by a breakdown in the flow of information (Turner and Pidgeon, 1997; Pidgeon and O'Leary, 2000). When faced with ill-structured problems involving several actors, information may be dispersed over a variety of actors. In these settings, it will likely be that different interpretations of risk arise, a phenomenon called "variable disjunction of information" in Turner's model (Turner and Pidgeon, 1997, p. 40). Pidgeon and O'Leary (2000) further discuss this phenomenon and argue that the variable disjunction of information will be "reinforced by the poor communications endemic to both the internal workings of large organizations and those which also arise across organizational boundaries" (p. 19). This relates not only to the causes of accidents, but also to the barriers to organizational learning from accidents.

When policymakers and managers make decisions about which risks are given what level of priority, they typically call for or require some form of comprehensive risk assessment as an aid to decision-making, at least with regard to what risks are the most important to address when and how. In the process, issues of safety and security understandably attain more or less priority as well. By extension, this priority-setting makes it necessary for the safety oriented and security oriented groups from our first case to coordinate across the cultural divide we have outlined. Ideally, decision-making about risk is followed by the implementation of risk-reducing measures. The implementation of risk-reducing measures can and often does require collaboration across organizational and cultural boundaries. As also seen in our third case describing the border-making process between the operationally oriented and strategically oriented within the police, different groups had in fact quite varied views regarding which measures should be implemented to improve the ability of the police to handle future terror attacks.

After the 2011 Oslo terror attacks, implementation capacity became a key concept of the official investigation. The term refers to the ability to carry through improvement measures (especially those for safety and security) that have been identified and decided. The risk of a car bombing outside the government building in Oslo was identified years in advance, and simple preventive measures had already been selected. Those measures, however, were not implemented, due in part to lack of clarity relating to the responsibilities of different agencies. The risk of implementation slippage will increase when implementation processes and responsibilities cross structural and cultural boundaries. It is true that differentiation in perceptions and worldviews regarding risk can be a good thing as a source of requisite variety and may lead to a form of quality assurance of safety-critical decisions (Antonsen, 2009). Nevertheless, the downside is the lack of critical integration and the possible presence of organizational inertia.

Better addressing and handling inter-organizational complexity has fast become ever more important for *societal* safety and reliability. Over a decade ago, LaPorte (2006) underscored this trend in organizing for reliability:

*It is one thing for a single organization to figure out how to operate reliably on its own, and then to carry out the required structural and management reforms successfully. It is another thing for a **web of interdependent organizations** to do the same thing. In tightly coupled systems, simply identifying vulnerabilities, let alone managing them, is a daunting task. In a sense, risk migrates to the weakest part of the system, but due to overall complexity, the migration occurs without anyone's knowledge, and without a clear understanding of where the weakest links are located. Yet not identifying such vulnerabilities and risks leave systems unprepared to function during extreme events. Resolving this analytic problem will require much greater transparency and knowledge of operations across organizations than has ever existed in the past. (LaPorte, 2006, p. 73 emphasis in original)*

The increasing interconnectivity of organizations and critical infrastructures is likely to require a step change in the way societies organize their efforts to uphold and improve safety and security. The management of boundaries separating sectors, organizations, societal levels, and communities of practice will force us to move beyond the sole reliance on high-level reforms and management by policy.

7 CONCLUSION

In discussing the role of safety culture or organizational culture on a societal level, we found it necessary to address it from a non-essentialist and interactional perspective. The existing research on organizational and safety culture largely aims at understanding the way cultural features influence the ability to achieve operational and organizational goals (safety). In examining the role of organizational (safety) cultures in achieving *societal* goals, we see that culture becomes relevant through the stereotyping and instantiation of collaborative problems at the societal level. In matters of societal safety, an organizational culture perspective provides lenses for understanding the patchwork of organizations and professional groups involved in societal safety and the collaborative problems this poses. These boundaries of cultural differentiation have implications for practice at this level of analysis and action. The stereotyping and cultural boundaries may well contribute to further clarifying power struggles, failures to communicate or collaborate, and also problems with implementing changes noted by the Gjørvi commission. Cultural boundaries sometimes correspond to and amplify the silos created by formal boundaries, it must be recognized as well that they also cut across formal structures. Culture also changes at a slower pace than organizational structures, which can be changed by means of deliberate decisions. Cultural boundaries may remain even when structures change. This can be a source of inertia, hampering efforts to improve societal safety and security. It is important to underline that cultural boundaries are not the only type of boundaries that influence the ability to collaborate and coordinate efforts across societal sectors. Needless to say, structural aspects, such as the division of labor distribution of decision-making authority and the distribution of financial resources, exert major influences on coordination and collaboration practices.

The paper also has implications for the epistemological and methodological approach to culture and safety culture in organizational research. Foremost, understanding organizational culture requires more thorough ethnographic studies than are usually funded. Much of the relevant

culture can be gleaned from non-discursive patterns in the habitus of individuals and in layered webs of meaning in symbols and language across groups and collectivities. It is not possible to identify, let alone address the relevant cultural traces by means of interviews and surveys only or even primarily. The better news is that, while inspecting cultural boundaries will not give us a complete picture of the culture in organizations, it is one way of understanding when, how and why cultural differences render themselves compelling as they emerge out of the friction generated by conflicts of interest, differences of perspectives and practice, and manifold contingencies producing case-by-case power struggles. When we inspect coordination and collaboration from this bottom-up perspective, it is clear that the remedies for these problems need to include organizational and practical measures. They certainly are not a matter only of policy or rationalistic re-drawing of organizational charts.

We have focused in our paper on cultural boundaries as obstacles to collaboration. These are important to understand and address for improving societal safety. Not only are our three cases illustrations of how cultural stereotyping hampers collaboration in and between groups. They also represent three of the most important collaboration challenges facing societal safety: between sectors, between governmental levels and between professions. However, it is just as important to note that these boundaries protect valuable knowledge and domains of practice. Efforts to create one, monolithic culture, for example between the national level and the rural municipalities, would fail, or where successful in part probably undermine important practices within the communities.

7.1 PRACTICAL IMPLICATIONS: BROKERS AND ARENAS FOR INTERFACE MANAGEMENT

While it is naïve in the extreme to suppose cultural differentiation can be "fixed" by management intervention, there are ways to develop the capacity to deal with some differences. Studying operational boundaries and stereotypes is one step. By recognizing that differences in perspectives do exist and that they are reciprocally legitimating, it is possible to open the action space for rethinking mutual dependencies and mutual recognition of roles and concerns. Our first case provides an example of this. Although the safety and security group discussed in the first case neither can nor should be merged – their practices are different – development of a more common language and case-by-case dialogue based on an understanding of their complementarity, we argue, could be more productive. Other remedies toward problematic cultural boundaries would involve brokers and middlepeople. Several emergency managers at the county governor's office take on such roles, brokering in the intersection between national bureaucratic demands and the practical reality in the municipalities. Building improved brokerage capacity between communities of practice is thus likely to serve as a means of practically managing the interface between these perspectives.

To bring about change to improve collaboration, it is necessary to accept and take as the core point of departure to any collaboration at the societal level those constituted differences and related conflicts of interest we have discussed throughout the paper and to work purposefully with specific challenges relating to specific situations that trigger or could trigger stereotypical behavior in groups responsible for societal safety. This certainly implies an improvement strategy based on organizational development and intra-organizational training. It means

involving and facilitating meetings between organizational members developing measures for improvement—again at the societal level, not just ministerial departmental level. Initiatives inspired by, e.g., organizational learning methodology (Argyris and Schön, 1978) and action research (Greenwood and Levin, 2006) may increase the brokering capacity across interfaces and contribute to establishing arenas for reflection on actions and for the development of measures. Such strategies have proven to be impactful in addressing challenges relating to interfaces between formal organizational units and informal groups (see e.g., Antonsen et al., 2007; Vikland et al., 2011; Solem and Kongsvik, 2013). They do, however, require resources and management commitment. As these measures at the societal level necessarily concern boundaries between and across organizations, they also lie on the boundaries of management responsibility areas and budgets. The clear risk and present danger of acting otherwise is ending up with symbolic measures that fragment society-wide challenges downwards to where neither the authority nor resources are or could ever be.

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