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List of Abbreviations

CRED	-	Centre for Research on the Epidemiology of Disasters
ERU	-	Emergency Response Unit (Red Cross)
HROS	-	High-Reliability Organizations
IFRC	-	International Federation of Red Cross and Red Crescent Societies
MSM	-	Mass Sanitation Module
NFIs	-	Non-Food Items
OPM	-	Office of the Prime Minister (Uganda)
PSNs	-	Persons with Specific Needs
SDGs	-	Sustainable Development Goals (United Nations)
UN	-	United Nations
UNDRR	-	United Nations Office for Disaster Risk Reduction (former UNISDR)
UNHCR	-	United Nations High Commissioner for Refugees
UNISDR	-	United Nations Office for Disaster Risk Reduction (now: UNDRR)
URCS	-	Uganda Red Cross Society
WASH	-	Water, Sanitation, and Hygiene Promotion

Overview Dissertation Papers

#	Title	Authors	Journal	Status	Conference Presentations
I	Beyond "Bouncing Back": Towards an Integral, Capability-Based Understanding of Organizational Resilience	Philipp M. Darkow	Journal of Contingencies and Crises Management (Impact Factor 1.365 Journal Citation Report 2018)	Published 2019 Vol. 27 (2) p. 145-156	- 2nd Workshop: Doing research in Extreme Environments, Umea 2016
II	Coordination Saves Lives: Towards a Dynamic Understanding of Enacting Coordinative Autonomy in Turbulent Settings	Philipp M. Darkow, Daniel Geiger	Organization Studies (VHB Jourqual 3: A Impact Factor 3.543 Journal Citation Report 2018)	submitted	- European Group for Organizational Studies (EGOS) PhD Pre-Colloquium Workshop, Naples 2016; - Annual Meeting for Organizational Research (AMOR), Hamburg 2016; - EGOS, Copenhagen 2017; - Conference on Humanitarian Logistics, Dresden 2017; - 3rd Northern European Conference on Emergency and Disaster Studies (NEEDS), Amsterdam 2018; - Accepted for presentation at VHB WK Organisation 42nd Workshop, Hamburg 2018; - Academy of Management (AOM) Annual Meeting, Chicago 2018;
III	Crafting Space: On Boundaries, Distance, and Movement in Crisis Management	Philipp M. Darkow, Daniel Geiger	Research in the Sociology of Organizations (VHB Jourqual 3: B)	Conditionally accepted for publication	- AMOR, Frankfurt O. 2018; - AOM, Boston 2019

Dealing with crises means dealing with nightmares
And nightmares become less of a threat
If someone turns on the light!

– (Gundel, 2005: 106) –

Synopsis

1. Introduction

Managing adversity is an unescapable reality for modern organizations (Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017: 733) and is even considered as "the new normal" (Tierney, 2014: 238). Adverse events threaten organization's viability (Boin & van Eeten, 2013: 430; C. F. Hermann, 1963)[1] and, moreover, can disrupt life-sustaining systems (Rosenthal, Charles, & 't Hart, 1989: 10), and the socio-political order ('t Hart, 1993: 39).

We see an increasing array of adverse events (Boin, 2009: 367) whose consequences confront public authorities, non-profit organizations, and private enterprises with crises that entail unique managerial problems (Drabek, 1985: 85). According to latest United Nations (UN) reports some 4.4 billion people were affected by weather-related or geophysical disasters like earthquakes, tsunamis, or tropical storms between 1998 and 2017 (CRED, 2018: 3), more than half of the world's population. Only between 2005 and 2015 about 700.000 people lost their lives due to the direct impacts of those disasters (UNISDR, 2015b: 10). Apart from the immediate threats to people's livelihoods, those adverse events caused dramatic economic losses around 2,908 billion between 1998 and 2017 (CRED, 2018: 3). While these figures only account for weather-related or geophysical adversity, we see a wide range of 'man-made' disasters adding on to the number of adverse events: political instabilities causing severe supply shortages (Venezuela), armed conflicts causing 'refugee crises' (Syria, South Sudan), or industrial accidents destructing the natural environment and local economies (Deepwater Horizon), just to name a few. Altogether, the adverse impacts of disasters represent a significant threat to all parts of society and their sustainable development (UNISDR, 2015b: 8). Consequently, acknowledging adversity as a significant menace to society and the necessity to improve disaster management capabilities has led the United

[1] According to APA citation standard this dissertation uses the authors' initials to differentiate references in cases of ambiguous citations.

Nations to initiate a number of global policies on a variety of issues such as Disaster Risk Reduction (Sendai Framework for Disaster Risk Reduction 2015-2030), Climate Change (UN Paris Agreement 2015), or Forced Displacement (UN Global Compact on Refugees 2018). Even the Sustainable Development Goals (SDGs) explicitly target the reduction of exposure and vulnerabilities "to climate-related extreme events and other economic, social, and environmental shocks and disasters" (SDG 1.5, UN, 2015: 19), the strengthening of "resilience and adaptive capacity to climate-related hazards and natural disasters" (SDG 13.1, UN, 2015: 27), and the facilitation of safe migration through the "implementation of planned and well-managed migration policies" (SDG 10.7, UN, 2015: 25).

Despite its long-standing tradition of more than five decades (C. F. Hermann, 1963; James, Wooten, & Dushek, 2011; Quarantelli, 1988; Rosenthal, Boin, & Comfort, 2001; Smith, 1990; B. A. Turner, 1976; Williams et al., 2017), academic research on managing adversity has been criticized for being disconnected from and neglected by mainstream organization and management theory (Roux-Dufort & Lalonde, 2013: 1; Scott, 1994: 25), limiting its contributions to the "management of exceptions" (Roux-Dufort, 2007: 105). However, with the growing societal awareness, the issue has found its way onto the research agendas of top-tier management journals and scholars have been called to dedicate their research, both, empirically and conceptionally, to the management of adversity (Ferraro, Etzion, & Gehman, 2015; George, Howard-Grenville, Joshi, & Tihanyi, 2016; van der Vegt, Essens, Wahlström, & George, 2015).

Notwithstanding the rise of research on organizational abilities to manage adversity in recent years, our knowledge remains fragmented (Boin, 2004: 166; James et al., 2011: 457; Kouzmin, 2008: 156; Williams et al., 2017: 734). This cumulative dissertation, titled **"Mastering Adversity: Resilient Organizing in the Age of Disruption"**, therefore, seeks to extend and consolidate our understanding of how organizations cope with adverse situations.

How do organizations manage ambiguously and discontinuously evolving settings in an effort to overcome potential threats to organizational performance and the livelihoods of the affected communities? In particular, the essays in this thesis empirically and conceptually interrogate three distinct concepts – resilience, coordination, and space – that, as this dissertation will outline, have been identified as crucial to the successful management of adversity. This dissertation continues with a brief overview on the current state of research on organizations' abilities to manage adversity. Here, the concepts of resilience, coordination, and space will be outlined as the theoretical vantage points of this thesis. Based on these concepts, I will identify theoretical shortcomings that this dissertation seeks to address. Consequently, I will present the methodological groundwork that is applied in the three essays, including a detailed description of the empirical research setting. Following a brief introduction of the three research articles, I will envision future avenues of research regarding the management of adversity.

2. Theoretical Background & Research Agenda

Adversity comes in many forms and with many labels such as disasters, crisis, or epidemics ('t Hart, Rosenthal, & Kouzmin, 1993: 12). Consequently, there have been many attempts to consolidate the discourse (Gundel, 2005; Hällgren, Rouleau, & de Rond, 2018; Pearson & Clair, 1998; Quarantelli, 1988; Suarez & Montes, 2019). Yet, the debate remains highly fragmented across disciplines, concepts, and units of analysis (James et al., 2011: 457; Shrivastava, 1993: 24; Williams et al., 2017: 734). Strikingly, the discourse is spread across strong dichotomies like human-made versus natural adversity (Kouzmin, 2008: 157; Zhang, Welch, & Miao, 2018: 371), to event-based versus process-based (B. A. Turner, 1976; Williams et al., 2017), or prevention versus response (Shrivastava, 1993; Smith, 1990). To build some common ground for this dissertation, this theoretical introduction will outline some major characteristics of adversity based on a separation between causes, consequences,

and the ways organizations deal with it (Shrivastava, 1993). Although those characteristics may occur in different forms and magnitudes and therefore justify the usage of different terms ranging from emergencies to catastrophes (Boin & McConnell, 2007: 51) they are still different from more common "run-of-the-mill" (James et al., 2011: 458) problems that organizations may face in their everyday activities (C. F. Hermann, 1963). Hereby, the unique managerial problems organizations face when being confronted to adverse situations will become apparent (Drabek, 1985: 85). As the theoretical vantage points of this dissertation, I will then introduce the concepts of organizational resilience, coordination, and organizational space and their relevance for the management of adversity. Despite the extensive work, which has been dedicated to each of these concepts individually, I will elucidate some remaining blind spots that lay the groundwork for my research agenda.

Causes

Research on the management of adversity has heavily focused on identifying its causes with the underlying rationale to proactively reduce potential threats and prepare management interventions (Pauchant & Douville, 1993: 45). Therefore, we have seen many studies trying to reveal the causes for specific incidents like the breakdown of the Fukushima nuclear power plant (Aoki & Rothwell, 2013), the Bhopal disaster (Shrivastava, 1992; Weick, 2010), or the Challenger space shuttle explosion (Romzek & Dubnick, 1987). Moreover, it was common to develop typologies that provide orientation for management personnel (Gundel, 2005). One of the most common and most simple typologies of adversity distinguished between either natural agents or socio-technological agents, leading to the denomination of disasters and social crises (Quarantelli & Dynes, 1977), where disasters refer to geo-physical events like earthquakes or hurricanes while social crises refers to any kind of 'man-made' incidents like economic crash or industrial accidents. However, this separation does not hold (Gundel, 2005: 107) since "damages from natural events are a function of economic, social,

and political choices, […which…] are rooted in technological, managerial, planning, political and social policy failures" (Shrivastava, 1993: 30). A view that was already promoted by Perrow (1984), who argued that the interactive complexity and tight coupling of components in modern, technological organizations are both, the cause for accidents but also the limit to the ability to respond to unanticipated events. Even more so, due to the incorporation of human failure and natural forces into technological systems those micro-situational events may cause large devastations on the macrolevel (U. Beck, 1992; U. Beck & Holzer, 2007; Gephart Jr & Pitter, 1993: 239; Gephart Jr., Van Maanen, & Oberlechner, 2009). This line of thought has promoted an understanding of adversity as being caused by low-probability, high-impact events (Pearson & Clair, 1998: 60) that are isolated in time and space (Boin & McConnell, 2007: 51; Lagadec, 2007; Weick, 1993: 633) and bear the notion of being unexpected (C. F. Hermann, 1963: 64) or a surprise (Bechky & Okhuysen, 2011; Jordan, 2010; La Porte & Thomas, 1995; Pina e Cunha, Clegg, & Kamoche, 2006). Conceptually, this is based on the assumption that organizations are per se interacting with a risky and uncertain environment (U. Beck, 1992; U. Beck & Holzer, 2007; Müller-Seitz, 2014; B. A. Turner, 1976). Whereas risks relate to the probability of occurrence and the associated consequences of a specific event (Gephart Jr. et al., 2009: 143; Knight, 1921; La Porte & Consolini, 1991: 23), uncertainty illustrates the fact that organizations deal with complexity, which bears so many potential interactions that it can never be assessed completely by any form of risk assessment (Ashby, 1958; Luhmann, 2005; Perrow, 1986). Following this assumption, adverse situations may emerge because the probability of a certain event was regarded as too low to prepare accordingly, or it was not even possible to anticipate. However, this concentration on low-probability or unexpected single events as the cause or characteristic of adverse situations was criticized very early as being a pro-western and pro-technological perspective, unsuitable to capture phenomena of an emerging nature like famines or epidemics, which are more common in less developed countries (Quarantelli & Dynes, 1977: 24;

Westgate & O'Keefe, 1976: 59). In fact, this criticism does not apply to the context of less developed countries only. Adverse situations may manifest themselves through a single triggering event but that may be the result of a "long period of incubation" (Williams et al., 2017: 737) or in other words "an accumulation of a number of events" (B. A. Turner, 1976: 381) that may even have been anticipated before but "which were unavoidable with the resources available" (B. A. Turner, 1976: 380).

To sum up, adverse situations may emerge from a variety of cause. In many cases, we see a physical event as the origin of adversity. However, a physical event alone does not suffice but the interaction "between the physical agent and a collection of people" (Westgate & O'Keefe, 1976: 46). Moreover, those events may be unexpected but do not necessarily need to be as they can be the result of a series of events that could not be prevented with the resources at hand. This perception captures a broader range of phenomena like epidemics or economic crisis. Based on those insights we cannot conclude a distinct type of event to qualify as causing adversity under all conditions. Thus, to specify our understanding of adversity, and why it is different from other organizational management challenges, it will be useful to illuminate its associated consequences.

Consequences

In its most simple notion adversity is a "disruption of normalcy" (Westgate & O'Keefe, 1976: 47). Of course, this is not a sufficient definition that allows to establish an understanding that is distinct from other organizational challenges. To develop a more detailed understanding of how adversity affects organizations, I build on the categorization by Pearson and Clair (1998) that subsumes the wide range of perspectives into (1) psychological, (2) social-political, and (3) technological-structural consequences.

To begin with the latter: The term technological-structural consequences may be misleading, since it commonly refers to more than only the physical-technological aspects of machines

or other technological devices. Instead, it also captures the "use of management procedures, policies, practices and routines" (Pauchant & Douville, 1993: 53). In this sense, adversity is about deviations from organizational performance limits (Vogus & Sutcliffe, 2007: 3419). Or more precisely, adversity refers to a disruption of ongoing organizational activities that requires a corrective action (Dutton, 1986: 502; Maitlis & Sonenshein, 2010: 552) otherwise it can have a variety of consequences from disrupting existing alliances (Bruyaka, Philippe, & Castañer, 2018) to threatening the viability of the focal organization (C. F. Hermann, 1963) . Of course, situations that affect organizational activities may be related to physical disruptions of resources or even the endangerment of human lives. Therefore, Kaniasty and Norris (1993: 396) simply describe adverse situations as a "catastrophic depletion of resources". Boin and McConnell (2007) refer to the breakdown of critical infrastructures, while Pauchant, Mitroff, and Ventolo (1992) discuss the disruption of high technologies. Notwithstanding, attempts to specify different forms of adversity and its consequences using quantitative measures, e.g. expressing the number of people being prone to death, danger and destruction (Michaelis, 1972) in fact, is somewhat arbitrary (Westgate & O'Keefe, 1976: 47), since it ignores the specific contexts in which adversity may occur. Hence, it may be useful to interrogate psychological and social-political consequences as they may offer distinct aspects that can be applied to a wide range of adverse phenomena.

Although psychological approaches commonly focus on the individual, they offer perspectives to understand the consequences for organizations and their responses to adversity (James et al., 2011; Schwartz, 1987: 62). After all, adverse situations elicit negative emotions and corresponding behavior (Brockner & Hayes James, 2008). Individuals who face those situations often lack appropriate interpretations to make sense out of those situations since they rarely occur (Weick, 1988: 305). Even more, individuals are confronted with overwhelming impressions that may lead to a collapse of their mental models and disrupt their ability to re-build these models at the same time (Cornelissen, Mantere, & Vaara, 2014;

Snook, 2002; Weick, 1993: 633). Realizing this loss of sensemaking may additionally shatter individuals' assumptions about themselves, their ability to keep control, and their self-worthiness (Janoff-Bulman, 1992).

The social-political perspective on adversity has received wide attention and is reflected in many definitions of crises, disasters, and catastrophes. It offers an opportunity to cover many forms of adversity while still being precise enough to demarcate it from other organizational phenomena. C. F. Hermann (1963: 64) argued that adversity "threatens high-priority values of the organization", and is associated with high costs, if the reason for adversity is not resolved (Dutton, 1986: 503). Moreover, it challenges the legitimacy of those in power since it questions their ability to protect the community and achieve results effectively (Boin & Lodge, 2016: 290; Dutton, 1986: 503; Wildavsky, 1988). Implicitly, the distinguishing point about adversity here is that it is collectively experienced. Therefore, Barton (1970: 38) refers to adversity as collective stress situations in which "many members of a social system fail to receive expected conditions of life from a system". In this vein, B. A. Turner (1976: 381) conceptualizes adversity as "a basic disruption of the social context and a radical departure from the pattern of normal expectations for a significant portion of the community". McFarlane and Norris (2006: 4) write about a "potentially traumatic event that is collectively experienced" and so do (Kaniasty & Norris, 1993: 396). Ergo, adversity affects the majority of individuals in a however defined social entity. Moreover, adverse situations are characterized by a high degree of ambiguity with regard to causes, effects, and means of resolution (Pearson & Clair, 1998: 60) but leave only a limited amount of time to respond (C. F. Hermann, 1963: 64; Kouzmin, 2008: 158; Rosenthal et al., 1989: 10). Sticking to a processual notion of adversity (Shrivastava, 1993: 25; Williams et al., 2017: 735), organizations continuously face these challenging conditions as adversity is ongoing and may confront organizations with discontinuous trajectories which endorses uncertainty (Wolbers, Boersma, & Groenewegen, 2018).

Altogether, what makes adverse situations adverse is not the isolated occurrence of one of these consequences, explained above, but that organizations are confronted with all of them at once (Kouzmin, 2008: 158): A disruption of the existing mechanisms of functionality that requires a major resource redistribution to prevent further losses (Korac-Kakabadse, Kouzmin, & Kakabadse, 2002: 38) under conditions of high ambiguity and time constraints while experiencing an individual mental overload as well as a collective loss of shared social norms and order ('t Hart, 1993: 39).

Managing Adversity

Having provided an understanding of the causes and consequences of adversity, it is of vital interest how organizations actually engage in managing those situations. Therefore, this paragraph briefly highlights the main lines of inquiry regarding the management of adversity. Actually, we again find here a strong dichotomy between research that addresses the issue of preventing adverse situations and reducing vulnerabilities (Shrivastava, 1993), and research that aims to identify ways how to deal with adverse situations once they could not be prevented from happening (Smith, 1990). Obviously, this distinction is related to the previous separation between causes and consequences as the first line of inquiry aims at reducing the causes of adversity and the latter tries to deal with the consequences. With regard to prevention, Shrivastava (1993: 27) declared a shift from reactive to anticipatory approaches: "[Organizations] are devoting resources to prepare for crises, and taking pre-emptive actions to avoid them. […] They do crisis planning and prepare for emergencies". In fact, this line of inquiry has received noticeable attention (Comfort, Boin, & Demchak, 2010; Pauchant & Mitroff, 1992). Hereby, research touches upon a variety of aspects ranging from improving technological systems (Alesi, 2008), to designing resilient institutions and risk management procedures (Boin & Lodge, 2016; Edgeman & Williams, 2014), to minimizing vulnerabilities (A. V. Lee, Vargo, & Seville, 2013; Longstaff, 2005).

One specific line of research addresses High-Reliability Organizations (HROs) (Frederickson & LaPorte, 2002; LaPorte & Consolini, 1998; Weick & Sutcliffe, 2007), and their ability to prevent adversity through the continuous production of 'dynamic non-events' (Weick, 2011: 21). Their approach emphasizes the importance of sensing potentially harmful developments as early as possible to contain their impact (de Waard, Volberda, & Soeters, 2012). They do so by interrelating heedfully (Weick & Roberts, 1993) and creating collective mindfulness (Weick, Sutcliffe, & Obstfeld, 1999) in order to detect upcoming threats early and prevent further escalation. In this vein, Schulman (1993) argues for conceptual slack as a mean to avoid misinterpretations of the situation at hand by allowing multiple conceptual frames to exist and to be used to analyse the situation. Moreover, HROs can switch swiftly between different structural arrangements to absorb upcoming stress situations (Bigley & Roberts, 2001).

On the other hand, there has been tremendous research on how to deal with the consequences of adverse situations – high levels of ambiguity and discontinuity, time constraints, disruption of established organizational structures and processes, and unclear cause-effect relationships – once they could not be prevented. In this vein, scholars have addressed a plethora of management concepts. Researchers have explored the challenges of decision-making under time constraints (Cosgrave, 1996; Kalkman, Kerstholt, & Roelofs, 2018; Kornberger, Leixnering, & Meyer, 2019) and the crucial importance of leadership (James & Wooten, 2010; James et al., 2011). Moreover, they shed light on the role of sensemaking (Maitlis & Sonenshein, 2010; Weick, 1988), inter-organizational collaboration (T. E. Beck & Plowman, 2014; Berthod, Grothe-Hammer, Müller-Seitz, Raab, & Sydow, 2017), communication (Blumenstock, Eagle, & Fafchamps, 2016; Sturges, 1994), and learning (Catino & Patriotta, 2013; Christianson, Farkas, Sutcliffe, & Weick, 2009). In the following, I will elucidate three concepts in more detail: coordination, space, and resilience that may offer fertile ground for further exploration (Boin, 2019; van der Vegt et al., 2015; Wolbers et al., 2018).

Coordination as Key Challenge

One central concept that plays a crucial role for mastering crises is coordination (Quarantelli, 1988: 382; van der Vegt et al., 2015: 975). Due to the characteristics of crises as situations that disrupt organizational management practices (Pauchant & Douville, 1993: 53), create new tasks with unclear authority (Quarantelli, 1988: 380), and confront organizations with ambiguity and discontinuity (Wolbers et al., 2018: 1525), sustaining or restoring coordination in the face of crises is an elementary capability.

Yet, a huge part of the crises management literature deals with coordination from a bureau-political or public administration perspective that suggests to improve crises management policies and thereby determine responsibilities and coordination procedures (Boin, 2016; Boin & Lodge, 2016; M. G. Hermann & Dayton, 2009; Kalkman et al., 2018). This design approach has received wide criticism for being inappropriate to stand the demands of quickly emerging and ambiguous situations (Faraj & Xiao, 2006: 1156; Kouzmin, 2008: 170).

At this point, organization and management theory can make a valuable contribution to crises management because of its long-standing involvement with the issue of coordination (Malone & Crowston, 1994; Okhuysen & Bechky, 2009; Van de Ven, Delbecq, & Koenig Jr., 1976). Especially, the relationships between coordination and uncertain environments, unexpected events and time constraints has been a major concern of organization and management research (Argote, 1982; Galbraith, 1973; Lawrence & Lorsch, 1967; March & Simon, 1958; Thompson, 1967; Van de Ven et al., 1976). While traditional theorizing also followed a design approach to coordination, only lately, the scholarly community began to conceptualize coordination as an emerging process that is achieved in practice (Gkeredakis, 2014; Harrison & Rouse, 2014; Jarzabkowski, Le, & Feldman, 2012). Acknowledging that adversity cannot be avoided a priori, leads to the question how organizations actually respond, when their pre-designed processes and structures fail to master unexpected situations. In this vein, we have gained rich insights, both conceptually and empirically, exploring how

organizations enact and restore their coordination in the face of disruptions (Batista, Clegg, Pina e Cunha, Giustiniano, & Rego, 2016; Bechky & Okhuysen, 2011; Bigley & Roberts, 2001; Faraj & Xiao, 2006; Patriotta & Gruber, 2015; Schakel, Fenema, & Faraj, 2016). Hereby, they focus on specific aspects of coordination such as the distribution of knowledge (Faraj & Xiao, 2006; Majchrzak, Jarvenpaa, & Hollingshead, 2007), organizational routines (Danner-Schröder & Geiger, 2016; Suarez & Montes, 2019), sensemaking (Patriotta & Gruber, 2015; Weick, 2010), bricolage (Bechky & Okhuysen, 2011), or switching between coordination practices (Schakel et al., 2016).

Nonetheless, as this dissertations' second article will outline in more detail, most of these studies focus on people's activities in the process of coordinating, and how those activities enable re-integration of coordination, when facing unexpected trajectories. In adverse situations however, the question may not only be how organizations coordinate but also what is the task that needs to be coordinated towards (Baker, Feldman, & Lowerson, 2013; Faraj & Xiao, 2006: 1156). Moreover, in those situations emergency managers are typically exposed to a high number of complex situational cues that bear the risk of being overwhelming. Therefore, essay II, being empirical in nature, will interrogate the following research question:

How do organizations coordinate towards tasks and avoid getting overwhelmed in turbulent settings?

Space as a Neglected Aspect of Crises Management

Another aspect of crises management that this thesis argues to be widely neglected in crises research so far is the role of space as a distinct mean to cope with adversity. Adverse events are commonly conceptualized as "concentrated space-time events" (Quarantelli & Dynes, 1977: 24) that either "cohere in time and space" (Weick, 1993: 633), or are "delineated in

time and space" (Boin & McConnell, 2007: 51). Nevertheless, the majority of studies prioritizes the temporal facet of crises in relation to various management concepts such as decision-making (Cosgrave, 1996; Kalkman et al., 2018; Kornberger et al., 2019), information processing (B. A. Turner, 1976), or collaboration and coordination (T. E. Beck & Plowman, 2014; Faraj & Xiao, 2006; Majchrzak et al., 2007; Wolbers et al., 2018).

In fact, especially with regard to coordination, space has a significant impact on organizational activity. It is more than just a "container waiting to be filled" (Clegg & Kornberger, 2006a: 144). Space in terms of proximity can be a facilitator for coordination (Espinosa, Slaughter, Kraut, & Herbsleb, 2007; Okhuysen & Bechky, 2009: 478) and encourage individual exploration (S. Lee, 2019). Moreover, the physical design of space regulates social relationships (Foucault, 1973; Hernes, 2004; Taylor & Spicer, 2007: 330), what may be an important mean to cope with humanitarian crises with large affected populations (de la Chaux, Haugh, & Greenwood, 2018; Smirl, 2008). On the other hand, space may also be a source of additional challenges for crises management due to the domino effect-like, unpredictable expansion of crises ramifications (Topper & Lagadec, 2013: 12) that may cross geographical boundaries (Boin, 2019; M. G. Hermann & Dayton, 2009) and thereby overwhelm crises management capacities on a nation state level. Consequently, essay III empirically addresses the following research question:

How do organizations enact space as a mean to resolve crises?

Resilience as All-Encompassing Remedy

So far, this theoretical introduction has built on the predominant dichotomies between natural versus man-made, or preventing crises versus managing crises. While this thesis explores the concepts of coordination and space during the management phase, the concept of resilience addresses both: crises prevention and crisis management. Surprisingly, the academic

debate on resilience has been held rather separately from the main crises management discourse without much integration between the two (Williams et al., 2017: 733).

The ‘quest for resilience‘ (Hamel & Välikangas, 2003: 52) has gained increasing attention in organization and management research (van der Vegt et al., 2015; Williams et al., 2017). Not least because there has been increasing institutional pressure by the United Nations and its subsidiary organizations as exemplified in the introduction of this thesis. Organizational resilience is a key driver for larger social entities’ ability to withstand and rebound from adversity (A. V. Lee et al., 2013: 29) since “organizations form the nexus between individuals and society” (van der Vegt et al., 2015: 971). Originating from the Latin word ‘resilire’, which basically means ‘jumping back’, the term resilience has been used across various disciplines such as ecology (Holling, 1973), psychology (Werner, 1989), or engineering (Ouyang & Dueñas-Osorio, 2014). Resilience was introduced into the social sciences by Wildavsky (1988: 61) as an effort to “predict and prevent potential dangers before damage is done […and…] resilience as the capacity to cope with unanticipated dangers after they have become manifest, learning to bounce back”. This is basically a metaphor, building on its roots in physics, where it describes “the capacity of a material or a system to return to equilibrium after displacement” (Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008: 127). Anyway, this influential definition may be one of the reasons why the debate addresses both, the prevention and the management of crises, which is reflected in many labels that have been used to specify resilience, such as active and passive resilience (Somers, 2009), basic and reflexive resilience (Bonß, 2015), or precursor and recovery resilience (Boin & van Eeten, 2013). As a consequence of this bewildering array of resilience research, criticism has been voiced, stating that the discourse is fragmented (Normandin & Therrien, 2016: 107) and has “not moved very far beyond the territory staked out by Wildavsky” (Boin, Comfort, & Demchak, 2010: 7).

In order to address this critique, this thesis' first essay aims to consolidate the current debate and offer some ground for further integration. Being conceptual in nature, it answers the following research questions:

What are the underlying assumptions that the main lines of thought on organizational resilience build on and what are potential problems about them?

and

How can different perspectives on organizational resilience be integrated into a common framework to foster progress in the debate?

3. Methodology

The in-depth exploration of the above presented research questions calls for a well-conceived methodology since "researchers need to use methodologies that are consistent with the assumptions and aims of the theoretical view being expressed" (Gephart Jr., 2004: 455). Consequently, theory and method need to be regarded as interrelated rather than treated independently from each other (Van Maanen, Sorensen, & Mitchell, 2007: 1145). In the following section I will briefly outline the underlying assumptions that my research builds on and that guided the choice of methods applied in the three consecutive essays.

Due to its multi-disciplinarity, management research is riddled by a wide range of methodological approaches (Tranfield & Starkey, 1998: 343) that comply with different research paradigms, which form the "basic belief system or worldview that guides the investigator" (Guba & Lincoln, 1994: 105). Hereby, the most prominent paradigms are the positivist, which relies "on the assumption of an objective world external to the mind that is mirrored by scientific data and theories" (Gephart Jr., 2004: 456), and the constructivist-interpretive paradigm that allows for multiple realities, based on multiple, intangible mental constructions, which are dependent on local contexts and the specific individual or group, which

holds those constructions (Guba & Lincoln, 1994: 110). The relationship between these two paradigms has been described as either overlapping (Gephart Jr., 2004: 455) or as demarcated by "battle lines" (Denzin & Lincoln, 2008: 2). However, neither of them can claim to depict ultimate truth as their assumptions are not grounded in incontestable logic but rely on persuasiveness and utility (Guba & Lincoln, 1994: 108) and therefore, require an a priori stipulation.

The overall aim of this thesis is to foster our theoretical knowledge about how organizations cope with adversity. Consequently, my dissertation subscribes to the constructivist-interpretive paradigm (Guba & Lincoln, 1994) for two reasons: First, the theoretical foundations that this thesis builds on use a sociologically inspired notion of adversity being an utterly personal and collectively experienced phenomenon. Therefore, it is crucial to understand the individual constructions of reality of those actors who are directly involved in the activities that are to be studied (Burrell & Morgan, 2017). Second, as this thesis seeks to generate theory about how organizations manage adverse situations that are characterized by an overwhelming degree of complex situational cues (Weick, 1993), it requires a holistic depiction of organizational realities that cannot be reduced to a few variables (Gephart Jr., 2004: 455). In order to promote theory building it is hence, necessary "to generate descriptions, insights, and explanations of events so that the system of interpretations and meaning, and the structuring and organizing processes are revealed" (Gioia & Pitre, 1990: 588). To arrive at meaningful constructions it requires intense interaction between and among the researcher and its subject of study (Guba & Lincoln, 1994: 111). Consequently, the constructivist-interpretive paradigm is usually associated with inductive, qualitative methods that put an emphasis on the situational details unfolding over time to describe organizational processes. Thereby, they inductively generate theoretical concepts that may reveal broader organizational phenomena by building on the concepts used by social actors (Gephart Jr., 2004: 457).

Research Design

This dissertation consists of three consecutive essays that examine different research questions. All of them are related to the overarching aim of this thesis to further our understanding how organizations deal with adverse situations. Nevertheless, the individual essays contribute to specific theoretical debates with different degrees of fragmentation and maturation in the sense of commonly accepted assumptions. To address those discussions accurately, the three essays are separated into a conceptual and an empirical part. Table 1 depicts the specific research questions of each of the three essays and the particular methods applied in each of them.

Paper	Research Question	Method
I	- What are the underlying assumptions that the main lines of thought on organizational resilience build on and what are potential problems about them? - How can different perspectives on organizational resilience be integrated into a common framework to foster progress in the debate?	Conceptual
II	- How do organizations coordinate towards tasks and avoid getting overwhelmed in turbulent settings?	Empirical, Qualitative
III	- How do organizations enact space as a mean to resolve crises?	Empirical, Qualitative

Table 1: Overview of Research Questions and Applied Methods

As shown in the theoretical introduction before, the discourse on organizational resilience is a widely fragmented field that has been criticized for missing overarching consensus regarding its theoretical foundations. In order to derive empirically pursuable research endeavors a sound theoretical framework is however indispensable (Sutton & Staw, 1995: 380). Essay I therefore, aims at developing a framework that allows to integrate divergent streams of resilience research. I do so by using a deductive conceptual approach that aims “to find what logical relations (such as equivalence, derivability, compatibility, or incompatibility) exist”

(Popper, 2005: 9) between the different lines of inquiry. Using this theoretical way of reasoning, I challenge the underlying assumptions that are associated to the different approaches (Alvesson & Sandberg, 2011) and develop consistent arguments, built on logical conclusion (Cornelissen & Durand, 2014), that allow for theoretical integration despite conceptual differences.

Essay II and III aim at fostering our knowledge on how organizations handle coordinative challenges during adverse situations and the role of organizational space in managing those situations. As the literature review has shown, coordination is increasingly understood as a continuous achievement of organizational practice that is subject to the specific context the focal organization operates in. The discourse on organizational spaces argues into the same direction as spaces are continuously constructed and altered through organizational activities. Hence, this part of my dissertation builds on an inductive, qualitative research design that is inspired by grounded theory considerations (Charmaz, 2006; Strauss & Corbin, 1998) and allows for a thorough investigation of organizational processes (Bansal & Corley, 2011). In particular, I use an ethnographic multiple-case study design (Eisenhardt, Graebner, & Sonenshein, 2016; Van Maanen, 2011), which allows "to focus in-depth […on…] organizational and managerial processes" (Yin, 2018: 5) and to tackle the "complex and evolving mix of technical and social elements" (Eisenhardt et al., 2016: 1113). Multiple-case study designs enable broad exploration of research questions and theory development (Eisenhardt & Graebner, 2007: 27) and are thus, a commonly used research design in qualitative research as a number of top-tier publications proof (Bechky & Okhuysen, 2011; Harrison & Rouse, 2014; Kellogg, 2009). Hereby, multiple-case study designs are also based on theoretical sampling that can apply different logics, such as replication, contrasting, or elimination of alternative explanations (Yin, 2018: 55). In the following, I will describe my rationale for the case selection, the choice of data collection methods and analysis.

Case Selection & Research Setting

Case studies are particularly well suited to generate theory inductively as it allows recognizing relationships and patterns among constructs within and across cases (Eisenhardt & Graebner, 2007: 25). The selection of cases for qualitative case-study research is based on theoretical reasoning why certain cases may be particularly suitable for illuminating the phenomenon a researcher is interested in (Eisenhardt & Graebner, 2007: 27). In the case of this thesis, selecting and accessing suitable cases that offer valuable insights was difficult since adverse situations often occur spontaneously and also represent extremely challenging conditions for the researcher himself (Hällgren et al., 2018). Thus as a first step, I chose the field of international humanitarian aid and especially refugee crises as a prototypical context (Siggelkow, 2007) that confronts organizations with adverse situations (de la Chaux et al., 2018; Mintzberg, 2001). According to the latest UN figures almost 71 million people are currently forcibly displaced and in 2018 37,000 people were forcibly displaced every day (UNHCR, 2019: 2). Refugee crises represent a particularly compelling context for my interest in the role of coordination and organizational space in managing adverse situations for six reasons: (1) Organizations confront high degrees of uncertainty regarding the development of refugee populations in terms of routes and numbers. (2) Supplying refugees with basic resources requires a collaboration in complex networks of international aid organizations, national and local public authorities, and private enterprises (Seybolt, 2009). (3) Refugee crises tend to happen in remote areas and overwhelm local infrastructures (de la Chaux et al., 2018). (4) Relief must be organized under tight time constraints because a shortage of supply may create multiple life-threatening perils like malnutrition and the spread of diseases, which are mutually interlinked (Toole & Waldman, 1997). (5) Apart from the life-threatening consequences of potential mistakes, these mistakes may threaten the aid organizations' public legitimacy and thereby its own viability as they are heavily dependent on financial donations (Ossewaarde, Nijhof, & Heyse, 2008: 767). (6) Refugees and refugee

camps have by definition crucial spatial aspects. According to the United Nations Refugee agency a refugee is someone who crosses international boarders (UN, 1951: Art.1 A.(2)) and refugee camps are a spatial formation demarcated from the hosting society (Ramadan, 2013: 65; Smirl, 2008; S. Turner, 2016: 141).

After choosing the context of refugee crises, I opted for a comparative case study design using a polar-type sampling logic. Polar-type sampling is

> "[…] a particularly important theoretical sampling approach […] in which a researcher samples extreme cases in order to more easily observe contrasting patterns in the data. […] This sampling leads to very clear pattern recognition of the central constructs, relationships, and logic of the focal phenomenon" (Eisenhardt & Graebner, 2007: 27).[2]

Because of this sampling approach, I selected two organizations, Team Humanity and the Uganda Red Cross Society (URCS) that both operate in refugee emergencies but which can be differentiated among a number of characteristics.

Team Humanity is a Danish volunteer-based organization that was founded in the advent of the European refugee crises in autumn 2015, when approximately 915,000[3] refugees arrived in the Mediterranean basin within nine months, out of which 780,000[4] arrived on Greek territory. Team Humanity started its operations on the Greek Island of Lesbos, where its main activities were related to sea rescue and administering first aid to the new arrivals directly at the beach before they were transported into shelters. From there Team Humanity moved its operations in early 2016 to the Greek mainland, as the situation at the wild camp Eidomeni at the Macedonian border was aggravating. When the Greek government decided to dissolve the camp and host the refugees in a number of small camps, Team Humanity moved its operations to a camp named Oreokastro hosting around 1,500 refugees near the

[2] For readability quotations with +30 words will be indented
[3] Based on own analysis of UNHCR reports accessible via https://data2.unhcr.org/en/situations/mediterranean
[4] See above

city of Thessaloniki. Here Team Humanity engaged in providing clothing, food and the provision of education. As it was a newly found volunteer organization, Team Humanity had a staggering number of members with five to twenty volunteers working sometimes only two weeks up to six months. Thus, internal structures and process were fragile and constantly emerging. Moreover, Team Humanity was completely funded by private financial and commodity donations as well as the private capital of the founder.

On the other hand, the Uganda Red Cross Society is a well-established humanitarian organization in Uganda that was recognized by an act of the Ugandan Parliament in 1964. Moreover, it is a member of the International Federation of Red Cross and Red Crescent Societies (IFRC). It has well-established local structures across the whole country and is professionally managed by employed staff at the headquarter and the local branches. It offers a wide range of services from social-service work to ambulance services and disaster response operations. During the South Sudan refugee crisis in 2016 and 2017 when approximately 815,000 South Soudanese refugees entered Uganda within nine months[5] URCS was one of the leading agencies. It provided a variety of services like water purification, construction of sanitation facilities, or distribution of essential goods to new arrivals across a number of refugee camps that hosted up to 270,000 refugees and are located in the northwestern districts Arua, Yumbe, and Moyo, one of the poorest regions on the planet.

Table 2 provides an overview of the distinctions between Team Humanity and the Uganda Red Cross Society.

[5] Based on own analysis of UNHCR reports accessible via https://data2.unhcr.org/en/situations/southsudan/location/1925

Characteristic	Team Humanity	Uganda Red Cross Society
Size	5-20 volunteers with short-term duration	ca. 200 employed staff + 350,000 registered members
Age	founded in autumn 2015	founded 1964
Expertise	continuously changing with changing location of activity	established provision of - community health and social services - First Aid and ambulance services - Disaster preparedness and response
Location of activities	One local area at a time: - shores of Lesbos - Eidomeni camp - Oreokastro camp	Nationwide, during refugee crisis focused on the districts Arua, Yumbe, and Moyo with several camps and water purification facilities
Number of beneficiaries	At Oreokastro camp ca. 1500	Based on number of inhabitants in the camps in that area: (09/01/2017)[6] - Bidi Bidi: 285,000 - Palorinya: 180,000 - Imvepi: 123,000
Funding	Private financial and commodity donations	Financial donations by institutional donors like the government or UNHCR

Table 2: Summary of Polar-Type Sampling Characteristics

Data Collection & Analysis

Data collection and analysis in inductive, qualitative case study research are an iterative process (Harrison & Rouse, 2014: 1263; Suddaby, 2006: 637). The whole data collection for this dissertation took around 18 months from 2016 to 2017. Hereby, ethnographic observations build the most insightful part of my data collection. They are an adequate method to investigate organizational processes because they "rigorously ground and contextualize the activities which the researcher observes and the accounts which [the researcher] receives from organizational members" (Watson, 2011). Those observations were supplemented by

[6] UNHCR: South Sudan Situation – Flash Update. September 5th 2017

interviews that were conducted as part of the observations and an excessive amount of documents like field reports, maps, press releases, and internationally accepted humanitarian aid frameworks. Data collection started with a familiarization phase, which was important to obtain interactional expertise (Collins, 2004; Langley, Smallman, Tsoukas, & Van de Ven, 2013: 6) that facilitated communication with actors and enculturation in the field (Srivastava, Goldberg, Manian, & Potts, 2018). Because of this familiarization, I developed a glossary that entailed 89 commonly used abbreviations and terms.[7]

Afterwards, two observation periods were conducted for both cases. Figure 1 illustrates the data collection period.

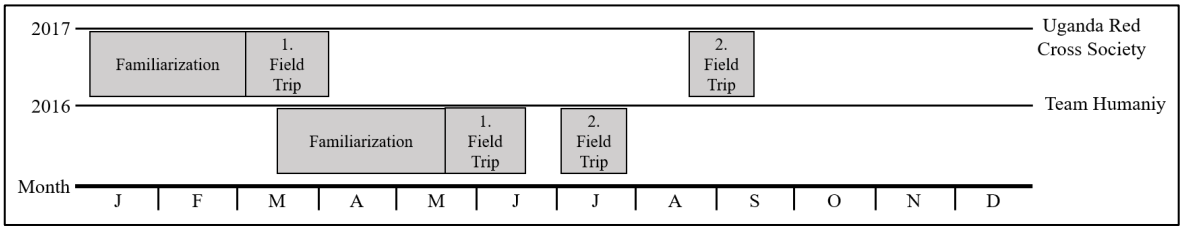

Figure 1: Overview of Data Collection

The first time, I joined Team Humanity as a volunteer shortly after it had started its operations at Oreokastro Camp at the end of May 2016. I was involved in providing a wide range of services from distributing clothes and bread to organizing medical care and community services. Apart from spending most of the day, sometimes until 3 or 4 a.m., at the camp, I was accommodated with the other volunteers in a small house. The second observation period was conducted in July 2016. Team Humanity was still operating in Oreokastro and I again worked as a volunteer. We accessed the Uganda Red Cross Society via personal contacts. Its main operations took place in the northwestern region of Uganda and focused on the three camps Imvepi, Palorinya, and Bidi Bidi. Here, URCS provided family reunifica-

[7] The glossary is provided as appendix 10

tion, construction of sanitation facilities, distribution of Non-Food Items (NFIs), and managing the registration of new arrivals. Both field trips were conducted by my co-author and myself. We accompanied URCS managers throughout the day, shadowing them at all their activities, ranging from field assessments, to staff and coordination meetings, and administrative work. In this case, we were also accommodated together with URCS managers, so we spent the whole day together, usually starting with breakfast around 7 a.m. and ending with after-work activities around 10 p.m.

In both cases, the way observations were conducted enabled a deep embedding into the field to understand the perceptions of those being observed and their way of dealing with the challenges at hand (Whiteman & Cooper, 2011). During all field trips, extensive field notes were taken on a note pad in situ, except for situations in which taking notes would have been regarded as inappropriate. Field notes were usually extended and completed from our memories as soon as possible (Dittrich, Guérard, & Seidl, 2016: 681; Emerson, Fretz, & Shaw, 2011).

In addition, interviews were conducted in both cases, covering a wide range of people across different hierarchical levels. Those interviews were usually conducted whenever an opportunity opened up. Usually the main points had to be taken in notes and then complemented from memory afterwards. As it is typical for ethnographic work, there were dozens of informal encounters and conversations throughout the day that found their way into the field notes. Table 3 provides an overview of the collected data.

Source Case	Observations	Interviews	Documents
Team Humanity	208 hours	18 (11 persons)	306 pages
Uganda Red Cross Society	673 hours	68 (41 persons)	2315 pages

Table 3: Summary of Collected Data

The analytical process for this dissertation's empirical part was inspired by an inductive, grounded theory approach (Charmaz, 2006; Eisenhardt et al., 2016). Thus, data analysis and collection were mutually inspiring each other. First impressions of the field trips were intensively discussed with the co-author to detect first contours of abstract themes, as suggested by Harrison and Rouse (2014). Based on the field notes, narrative accounts of each day were written and included personal impressions of situations and quotations from informal conversations (Goodall Jr., 2008; Langley, 1999: 695). Those narrative accounts and interview transcripts were then analyzed more thoroughly, using an open-coding approach (Gioia, Corley, & Hamilton, 2012; Strauss & Corbin, 1990) to abstract first-order concepts into more generic second order themes, which we aggregated into an definitive set of theoretical patterns that explain how organizations deal with coordinative and spatial challenges in the process of managing adverse situations. During this final part of our analysis, we complemented our findings by recurring to existing theory on coordination and organizational space. For our analytical process, we chose organizational practices as our unit of analysis (Feldman & Orlikowski, 2011; Schatzki, Knorr-Cetina, & Savigny, 2001). The practice-based perspective acknowledges "the social, historical, and structural contexts […that shape organizational phenomena, which are] built around a contingent logic of action" (Corradi, Gherardi, & Verzelloni, 2010: 267). Hence, it is an appropriate approach that suits the interpretive paradigm and the theoretical groundworks applied in this dissertation. Appendix 8 and 9 provide a detailed illustration of the result of our analytical process for the empirical essays 2 and 3.

Quality Criteria

Inductive, qualitative research methodologies traditionally have a difficult stand in justifying the quality of their results because they do not conform with established quality criteria that

are commonly used in social science research (Bansal & Corley, 2011). Those criteria usually entail construct validity, internal validity, external validity, and reliability and are expressed in statistical terms to ensure methodological rigor and the generalizability of findings. Although there is a debate on whether there is a need for other quality criteria for qualitative research Guba and Lincoln (1994: 114) concluded that those suggestions basically equal the established ones. Therefore, the criteria stay the same but the way of reasoning differs by using analytic instead of statistical generalization (Yin, 2018: 37). Consequently, I will outline the soundness of my research design according to those four established criteria.

Construct validity shall proof that the particular phenomenon of interest is indeed being studied. Therefore, in qualitative case study research it is important to establish "converging lines of inquiry" (Yin, 2018: 127) by using multiple sources of evidence and letting key informants review your results (Yin, 2018: 43). During my research I collected three different forms of data: (1) ethnographic observations (Van Maanen, 2011; Watson, 2011), (2) interviews (Gioia et al., 2012) and (3) documents (Yin, 2018: 113). Moreover, I had several feedback loops after several rounds of analysis with key informants in both cases. Thereby, I could ensure that I captured the phenomenon in question.

Internal validity usually is usually a matter of concern when the research aims at establishing causal relationships. However, my case study is exploratory in nature and therefore does not aim at establishing such a relationship. Therefore, there is no need to proof the internal validity of my findings (Yin, 2018: 45).

The quest for external validity is "grounded in the intuitive belief that theories must be shown to account for phenomena not only in the setting in which they are studied but also in other settings" (Gibbert & Ruigrok, 2010: 714). Usually this requirement is satisfied by providing statistical measures on the validity of findings for a however specified population (Gibbert & Ruigrok, 2010: 714; Yin, 2018: 37). Case study research however, can barely provide

those statistical evidence and therefore seeks to provide analytic generalization instead (Yin, 2018: 38). Analytic generalization relies on theoretical case sampling (Eisenhardt & Graebner, 2007: 27; Gibbert & Ruigrok, 2010: 715) and the provision of second-order inferences that are "based on either corroborating, modifying, rejecting, or otherwise advancing" (Yin, 2018: 38) existing theoretical knowledge. This dissertation complies to both of these strategies since the cases were selected based on theoretical assumptions and the findings are discussed in light of existing theory to develop "supportive arguments" (Yin, 2018: 38) that proof the generalizability of my findings.

The last quality criterion that shall be addressed here is reliability. Reliability refers to "the degree of consistency with which instances are assigned to the same category by different observers" (Hammersley, 1992: 67). Although this requirement may be debatable since the constructivist-interpretive paradigm, which is applied in this thesis, is characterized by epistemological role of the researcher as a "passionate participant actively engaged in facilitating the "multivoice" reconstruction of his or her own construction as well as those of all other participants" (Guba & Lincoln, 1994). Consequently, the researcher's own experiences and cognitive framings are a distinctive part of qualitative research, which is not easily replicable. However, Yin (2018: 46) suggests that the only way to escape this problem is to make the research process as explicit as possible, provide information on the researchers' background and previous experience, explain the rationale for the choice of methods and the selection of cases, and show the analytical process to make your interpretations comprehensible. As the individual essays show, the methodological deliberations and processes conducted during my research endeavors are explained with a high degree of detail in the according methods sections and therefore comply with the reliability criterion.

Altogether, this thesis' methodological approach is in line with its theoretical foundations and appropriate with regard to the research questions that shall be examined.

4. Summary of Essays

I: Beyond "Bouncing Back": Towards an Integral, Capability-Based Understanding of Organizational Resilience

(Darkow, P. M., Journal of Contingencies and Crisis Management Vol. 27 (2), 2019, pp.145-156)

This dissertation's first essay is conceptual in nature. It aims at consolidating our understanding of organizational resilience by developing an integral, processual understanding of resilience that promotes the equal importance of different capabilities throughout the different phases of disasters.

Since societies around the world are facing increasing numbers of adverse events (UNISDR, 2015a), being able to prepare for and rebound from those events is one of the major challenges of our times (van der Vegt et al., 2015). In this context, the concept of resilience has become a desirable characteristic for individuals, communities, corporate organizations, and public authorities. Consequently, it has attracted a substantial amount of research, resulting in divergent discourses among various scientific disciplines and practitioner communities (Boin & van Eeten, 2013: 430; Normandin & Therrien, 2016: 107). Early scientific conceptualizations refer to resilience as "a measure of the persistence of systems and their ability to absorb change and disturbance and still maintain the same relationships between populations" (Holling, 1973: 14).

Scholars of psychology tend to use resilience as "descriptive label […] [for] individuals who appear to function surprisingly well under environmental conditions judged to be adverse and stressful" (Klohnen, 1996: 1068).

Into the social sciences, Aaron Wildavsky introduced the term resilience. He distinguished between anticipation, defined as making an effort to "predict and prevent potential dangers before damage is done […and…] resilience as the capacity to cope with unanticipated dangers after they have become manifest, learning to bounce back" (Wildavsky, 1988: 61). Now,

30 years later, we find many proposals building on the same idea, using terms such as offense and defense resilience (Mamouni-Limnios & Mazzarol, 2011), active and passive resilience (Somers, 2009), or basic and reflexive resilience (Bonß, 2015). However, "it is fair to say that we have not moved very far beyond the territory staked out by Wildavsky" (Boin et al., 2010: 7). There is still confusion about analytical levels ranging from individuals to teams and organizations to networks. It remains difficult even to reach a shared agreement about the basic characteristics of events that require resilience, as understandings of the concept remain vague (Williams et al., 2017). Due to its latent character, resilience can only be attributed to organizations after they have successfully mastered surprising shocks. Consequently, we face empirical problems in terms of access to organizations, while they are facing crises and operationalization of benchmarks (Boin & van Eeten, 2013: 432; van der Vegt et al., 2015: 976).

In this first essay of my dissertation, I argue that we need to transcend this fragmented notion of resilience and instead use the term as a conceptual umbrella (Masten & Obradović, 2007: 14). The umbrella metaphor supports a processual understanding of resilience (Norris et al., 2008: 130). Hence, an integral, capability-based understanding of organizational resilience promotes the idea that to cope successfully with crises; organizations need to enact varying practices during different phases that occur before, during, and after the onset of crises. Only by devoting equal attention to these practices and their interplay throughout the different phases of crises will we be able to expand our theoretical grounding of the concept of resilience.

Therefore, Essay I begins with a review of the recent literature on resilience that encourages organizations to strengthen their resistance to crises as an effective way of enhancing resilience. I label this perspective the Plan to Resist Approach that builds on the underlying assumption that better foresight helps to mitigate risks – an assumption that is challenged subsequently (Alvesson & Sandberg, 2011). As a contrast, this essay outlines major findings

from the research on high-reliability organizations (HROs), which are commonly regarded as role models for resilient organizations (Boin & van Eeten, 2013). The following examination of this literature reveals the underlying assumptions of this Containing Crises Approach, which I then discuss with regard to its empirical and theoretical shortcomings. Consequently, I develop an integral, capability-based framework of organizational resilience that enables integrating both approaches. This integration however, reveals a blind spot that has so far not received significant attention in resilience research: the recovery phase. As I will argue in this essay, future research in this area should not conceptualize resilience as bouncing back but rather as a form of achieving a new normal. The essay closes with an outlook on future avenues for empirical research, especially with regard to the recovery phase and potential problems that may accompany these research efforts.

II: Coordination Saves Lives: Towards a Dynamic Understanding of Enacting Coordinative Autonomy in Turbulent Settings

(Darkow, P. M. / Geiger, D.; submitted to Organization Studies)

This dissertation's second paper addresses the current debate on organizational coordination in fast-response settings and is empirical in nature.

High-thread events pose major challenges on organizations (UNISDR, 2015a). Responding to those disasters requires a timely coordination of efforts and is therefore a key concern for the organizations involved (Majchrzak et al., 2007: 150; van der Vegt et al., 2015: 975). Particularly in extreme contexts, coordination is a major challenge since ambiguity, discontinuity, and unexpected events are common and impair the integration and synchronization of activities (Hällgren et al., 2018; Wolbers et al., 2018). Latest empirical studies focused on the ability of high-reliability and fast-response organizations to withstand turbulent settings and to ensure the coordination of activities even in the face of disruptions (Bechky & Okhuysen, 2011; Bigley & Roberts, 2001; Danner-Schröder & Geiger, 2016; Faraj & Xiao,

2006). These studies highlight the need to complement well-rehearsed coordination practices with more improvisational practices enabling organizations to address potentially overwhelming situations (Suarez & Montes, 2019). Here, the dominant interest lies on the emergent process of coordinating from a social practice perspective (Gkeredakis, 2014; Jarzabkowski et al., 2012), what tends to be in line with the current mainstream perspective in organization studies (Okhuysen & Bechky, 2009).

In essay II, we argue that this development has led to an overemphasis of the actual activities that actors perform in an effort to achieve coordination, while neglecting the relationship between coordination activities and the actual tasks that need to be coordinated. Though, in turbulent settings discontinuity and ambiguity not only affect the process of coordinating (Wolbers et al., 2018) but also the understanding of tasks (Faraj & Xiao, 2006: 1156). Therefore, developing and contributing to a processual understanding of coordination (Jarzabkowski et al., 2012) requires studying how coordinating practices shape the understanding of tasks, thereby moving beyond a static understanding of tasks towards acknowledging the mutual interdependencies between coordination activities and the construction of tasks (Farjoun, 2010).

We aim to contribute to the understanding of the relationship between coordinating and the continuous construction of tasks in the face of ongoing disruptions in highly dynamic situations. Although many studies share an interest in understanding the process of coordination and explore emergent coordination, the task, or collective performance that results from coordinating is largely being taken for granted. Despite the processual understanding that guides most studies on coordination, most of them at least implicitly see coordination as a means that serves to accomplish a particular, ex-ante defined and rather static task. Moreover, the focus on integrating conditions that are disrupted by external events paints a rather re-active picture of coordination in adverse settings. Whilst organizations are understood as expecting the Unexpected (Bechky & Okhuysen, 2011), they are still conceptualized as

adopters that need to simply cope with adversity. Our study is thus, designed to better understand how coordination is enacted in turbulent, highly dynamic environments, where a flexible approach to tasks (Baker et al., 2013) and the capability to deal with a large number of complex situational cues without getting overwhelmed (Weick, 1993) are fundamental. To explore our research question how organizations coordinate towards tasks and avoid getting overwhelmed in turbulent settings, we theoretically sampled the Uganda Red Cross Society's emergency response operations in Ugandan refugee settlements during the South Sudanese Refugee Crisis in 2016 and 2017. Our qualitative field study is based on extensive non-participant observation and interview data. Our analysis suggests that emergency managers have a very flexible approach towards the task of coordination, which is not a means to an end but is constructed in the process of coordinating. Enacting coordination practices enabled practitioners to firstly orient towards missing integrating conditions, enact disruptions and thereby either stabilize or modify the task in the process of coordinating. Hereby, our findings reveal that whenever the predictability of operations was at stake managers enacted coordination practices such as process restoring or dynamic resourcing to stabilize the task, whereas they modified the task by enacting gap spotting, adaptive decelerating, or processual bandwagoning whenever their accountability for a certain task was questioned. With these insights, we contribute to coordination literature by introducing the concept of *coordinative autonomy* and strengthen our understanding of coordinating as process by taking the duality of coordination and tasks into account.

III: Crafting Space: On Boundaries, Distance, and Movement in Crises Management

(Darkow, P.M. / Geiger, D., conditionally accepted at Research in the Sociology of Organizations)

In the third essay of this thesis, we explore the enactment of space as a distinct management practice to cope with crises. Crises are commonly conceptualized as concentrated space-time events (Boin & McConnell, 2007; Quarantelli & Dynes, 1977: 24; Weick, 1993; Williams et al., 2017) that confront organizations with high degrees of ambiguity and uncertainty (Wolbers et al., 2018) due to complex relations between causes, effects, and means of resolution (Pearson & Clair, 1998: 60). Crisis management research so far, has put an emphasis on the temporal dimensions of crises and their impact on a variety of management concepts such as decision-making (Kornberger et al., 2019), leadership (James et al., 2011), coordination and collaboration (T. E. Beck & Plowman, 2014; Berthod et al., 2017; Majchrzak et al., 2007; Wolbers et al., 2018), or new business models as a means to organize crises relief fast (Kornberger, Leixnering, Meyer, & Höllerer, 2018; Williams & Shepherd, 2016).

Because it is commonly accepted that space is more than just a context condition but actively shaping organizational action (Clegg & Kornberger, 2006b; Taylor & Spicer, 2007), we investigate how aid organizations purposefully enact spatial boundaries, move these boundaries, and enact social and spatial distances, which are constitutive elements of space (Weinfurtner & Seidl, 2019), to cope with the inherent complexity of crises situations. To shed light on the spatial aspects of crises and crisis management, we conducted a contrasting ethnographic case study of two refugee camps in Uganda and Greece. Refugee camps are particularly well suited because they are a "crucial spatial formation" (Ramadan, 2013: 65) that confront organizations with unique managerial challenges (Mintzberg, 2001) due to their significant spatial characteristics like remoteness (de la Chaux et al., 2018). Refugee camps are also prototypical for crises situations because organizations are responsible to

supply refugees with essentials of life and shortages in supplies can threaten refugees' survival (Toole & Waldman, 1997). Our findings reveal that aid organizations enact different constellations of boundary-setting, movement and distance, which we label as *authoritarian*, *adaptive*, and *collaborative spacing*. We thereby, contribute to theory in two different ways. First, we show how organizations are able to deal with varying degrees of complexity by alternating between different forms of boundary-setting and movement. Thereby, they are able to either reduce complexity or create collaborative complexity (Schneider, Wickert, & Marti, 2016) in order to keep up with the dynamic expansion of crises situations. Second, we contrast the common conceptualization of refugee camps as a special form of a total institution (de la Chaux et al., 2018). Our findings show that aid organizations do not maintain institutional boundaries between them and their beneficiaries but instead alternate between different forms of boundary-setting and movement to mediate the social distance and the respective nature of power relations.

5. Future Research

The findings presented in the three consecutive essays of this dissertation provide rich avenues for future research, both conceptually and empirically.

Apart from potential future research endeavors aiming to advance the specific debates on organizational resilience, coordination and organizational space, organization and management theory can make valuable contributions to the general challenge of mastering adverse situations. The continuously changing nature of adverse situations (De Smet, Lagadec, & Leysen, 2012; Rosenthal et al., 2001; Topper & Lagadec, 2013) creates new challenges that management scholars may provide answers to. Climate change (Davoudi, Brooks, & Mehmood, 2013; Howard-Grenville, Buckle, Hoskins, & George, 2014), globally interconnected economic relations (Kizu, Kühn, & Viegelahn, 2018), and critical infrastructures' increasing vulnerability to technological failure and digital assaults (Boin & McConnell,

2007) certainly are some of the main drivers that increase the risk of "mega-disasters" (Tierney, 2014: 238) or "mega-crisis" (Topper & Lagadec, 2013: 5) to occur more frequently and causing massive devastations. Adverse situations caused by those drivers can take many different forms: Water scarcity and heatwaves may nurture armed conflicts over resources and thereby foster population movements (Mach et al., 2019). Weather catastrophes affect the livelihoods of whole countries and economic turmoil threatens the political stability within and across countries (Boin & Lodge, 2016: 281). Since those situations disproportionately affect the less privileged members of society (UNDRR, 2019: xi), the effective prevention and management of adverse situations is not only a matter of avoiding losses but also a matter of social justice. Hence, political systems and public administrations jeopardize their legitimacy if they are not able to provide feasible solutions to those problems (Carlin, Love, & Zechmeister, 2014; Zanotti, 2010), which may create a self-reinforcing circle of adversity.

To improve organizations' capacity to manage adverse situations researchers thus, may drive their efforts into a variety of potential research avenues. I suggest three main groups of subjects that may be promising for future research:

First, researchers lately promoted the argument that adverse situations are no longer bound to local or regional territories but easily escalate into large-scale, transboundary crises (Boin, Rhinard, & Ekengren, 2014; van der Vegt et al., 2015: 971). Following this line of thought, new challenges arise that deserve attention. Since the responsibility for preparing for and managing adverse situations is usually orchestrated on the nation-state level, governance regimes and public institutions need to expand to an international level (Boin & Lodge, 2016). Moreover, in face of transboundary crises single organizations may be overwhelmed and unable to respond adequately. Hence, we witness the emergence of complex and temporary organizational networks, including public authorities, non-governmental organizations, private enterprises, and societal actors, which demands new forms of collaboration.

Those need to enable organizations to build trustful relationships, bridge different institutional logics, and synchronize their standardized procedures and routines (Bakker, DeFillippi, Schwab, & Sydow, 2016; T. E. Beck & Plowman, 2014; Berthod et al., 2017).

Second, as the European refugee crisis in 2015 has shown, conventional aid organizations often find themselves not to be the only ones engaged in adverse situations. The role of emerging response groups, first responders, and volunteers becomes increasingly important but is yet often neglected (Florian, Costas, & Kärreman, 2018; Johansson, Danielsson, Kvarnlöf, Eriksson, & Karlsson, 2018). In fact, this development raises questions about the coordination of expertise, which may be difficult to grasp or even non-existent among volunteers (Majchrzak et al., 2007), as well as collaboration with professional rescue organizations (Lorenz, Schulze, & Voss, 2018). Moreover, established procedures of decision-making are being challenged and call for more inclusion (Johansson et al., 2018; Kornberger et al., 2019). Another aspect that may create additional problems concerns the mental health of first responders who may be overwhelmed by the adverse setting (Alexander & Klein, 2009). Thus, management research needs to address those new challenges by taking up on a variety of theoretical perspectives like organizational psychology or social movements theory (Bansal, 2019) for example.

Third, although technological progress creates risks and vulnerabilities, it also offers possibilities to improve disaster relief efforts. For example, open mapping of devastations and road conditions, like in the aftermath of the Haitian earthquake in 2010, enables organizations to improve their logistics and the targeted distribution of relief goods and services (Soden & Palen, 2014). Moreover, social media plays a crucial role in preparing for adverse events (Olson et al., 2019) and during the response phase in coordinating relief efforts (Hughes & Palen, 2009; Schmidt, Wolbers, Ferguson, & Boersma, 2018). In addition, the integration of entrepreneurial approaches into conventional disaster relief operations may offer a bright avenue for future research (Kornberger et al., 2018; Williams & Shepherd,

2016). Conventional disaster relief usually prioritizes the fast provision of goods and services for free and thereby, nurtures the deprivation of the beneficiaries (S. Turner, 2016: 143). Hereby, technology has a central meaning for facilitating for example mobile or biometric payments (Blumenstock et al., 2016) like in the refugee camp Zaatari in Jordan. Restoring economic transactions on a local or regional scale may accelerate recovery and thereby lessen the adverse impacts (Williams & Shepherd, 2016). However, those developments create challenges for organizations in terms of managing and adapting to different institutional logics for example.

6. References

't Hart, P. (1993). Symbols, rituals and power: The lost dimensions of crisis management. *Journal of Contingencies and Crisis Management, 1*(1), 36-50.

't Hart, P., Rosenthal, U., & Kouzmin, A. (1993). Crisis decision making: The centralization thesis revisited. *Administration & Society, 25*(1), 12-45.

Alesi, P. (2008). Building enterprise-wide resilience by integrating business continuity capability into day-to-day business culture and technology. *Journal of Business Continuity & Emergency Planning, 2*(3), 214-220.

Alexander, D. A., & Klein, S. (2009). First responders after disasters: a review of stress reactions, at-risk, vulnerability, and resilience factors. *Prehospital and Disaster Medicine, 24*(2), 87-94.

Alvesson, M., & Sandberg, J. (2011). Generating research questions through problematization. *Academy of Management Review, 36*(2), 247-271.

Aoki, M., & Rothwell, G. (2013). A comparative institutional analysis of the Fukushima nuclear disaster: Lessons and policy implications. *Energy Policy, 53*, 240-247. https://dx.doi.org/10.1016/j.enpol.2012.10.058

Argote, L. (1982). Input uncertainty and organizational coordination in hospital emergency units. *Administrative Science Quarterly, 27*(3), 420-434. https://doi.org/10.2307/2392320

Ashby, W. R. (1958). Requisite variety and implications for control of complex systems. *Cybernetica, 1*(2), 83-99.

Baker, N. D., Feldman, M. S., & Lowerson, V. (2013). Working through disaster: Re-establishing mental health care after hurricane Katrina. *Disaster Medicine and Public Health Preparedness, 7*(3), 222-231. https://doi.org/10.1001/dmp.2012.12

Bakker, R. M., DeFillippi, R. J., Schwab, A., & Sydow, J. (2016). Temporary organizing: Promises, processes, problems. *Organization Studies, 37*(12), 1703-1719. https://doi.org/10.1177/0170840616655982

Bansal, P. T. (2019). Sustainable development in an age of disruption. *Academy of Management Discoveries, 5*(1), 8-12. https://doi.org/10.5465/amd.2019.0001

Bansal, P. T., & Corley, K. (2011). From the editors: The coming of age for qualitative research: Embracing the diversity of qualitative methods. *Academy of Management Journal, 54*(2), 233-237.

Barton, A. H. (1970). *Communities in disaster: A sociological analysis of collective stress situations*. Garden City, NY: Doubleday Inc.

Batista, M. d. G., Clegg, S., Pina e Cunha, M., Giustiniano, L., & Rego, A. (2016). Improvising prescription: Evidence from the emergency room. *British Journal of Management, 27*(2), 406-425. https://doi.org/10.1111/1467-8551.12143

Bechky, B. A., & Okhuysen, G. A. (2011). Expecting the unexpected? How SWAT officers and film crews handle surprises. *Academy of Management Journal, 54*(2), 239-261. https://doi.org/10.5465/AMJ.2011.60263060

Beck, T. E., & Plowman, D. A. (2014). Temporary, emergent interorganizational collaboration in unexpected circumstances: A study of the columbia space shuttle response effort. *Organization Science, 25*(4), 1234-1252. https://doi.org/10.1287/orsc.2013.0888

Beck, U. (1992). *Risk society: Towards a new modernity* (M. Ritter, Trans.). London, Newbury Park, New Dehli: Sage Publications.

Beck, U., & Holzer, B. (2007). Organizations in world risk society. In C. M. Pearson, C. Roux-Dufort, & J. A. Clair (Eds.), *International Handbook of Organizational Crisis Management* (pp. 3-21). Thousand Oaks, California: Sage Publications, Inc.

Berthod, O., Grothe-Hammer, M., Müller-Seitz, G., Raab, J., & Sydow, J. (2017). From high-reliability organizations to high-reliability networks: The dynamics of network

governance in the face of emergency. *Journal of Public Administration Research and Theory, 27*(2), 352-371. https://doi.org/10.1093/jopart/muw050

Bigley, G. A., & Roberts, K. H. (2001). The incident command system: High-reliability organizing for complex and volatile task environments. *Academy of Management Journal, 44*(6), 1281-1299. https://doi.org/10.2307/3069401

Blumenstock, J. E., Eagle, N., & Fafchamps, M. (2016). Airtime transfers and mobile communications: Evidence in the aftermath of natural disasters. *Journal of Development Economics, 120*, 157-181.

Boin, A. (2004). Lessons from Crisis Research. *International Studies Review, 6*(1), 165-174. https://doi.org/10.1111/j.1521-9488.2004.393_2.x

Boin, A. (2009). The new world of crises and crisis management: Implications for policymaking and research. *Review of Policy research, 26*(4), 367-377. https://doi.org/10.1111/j.1541-1338.2009.00389.x

Boin, A. (2016). Designing crisis management systems for the twenty-first century. *Public Administration, 94*(2), 569-575. https://doi.org/10.1111/padm.12260

Boin, A. (2019). The Transboundary Crisis: Why we are unprepared and the road ahead. *Journal of Contingencies and Crisis Management, 27*(1), 94-99. https://doi.org/10.1111/1468-5973.12241

Boin, A., Comfort, L. K., & Demchak, C. C. (2010). The rise of resilience. In A. Boin, L. K. Comfort, & C. C. Demchak (Eds.), *Designing resilience: Preparing for extreme events* (pp. 1-12). Pittsburgh: University of Pittsburgh Press.

Boin, A., & Lodge, M. (2016). Designing resilient institutions for transboundary crisis management: A time for public administration. *Public Administration, 94*(2), 289-298.

Boin, A., & McConnell, A. (2007). Preparing for critical infrastructure breakdowns: The limits of crisis management and the need for resilience. *Journal of Contingencies and Crisis Management, 15*(1), 50-59. https://doi.org/10.1111/j.1468-5973.2007.00504.x

Boin, A., Rhinard, M., & Ekengren, M. (2014). Managing transboundary crises: The emergence of European Union capacity. *Journal of Contingencies and Crisis Management, 22*(3), 131-142. https://doi.org/10.1111/1468-5973.12052

Boin, A., & van Eeten, M. J. G. (2013). The resilient organization. *Public Management Review, 15*(3), 429-445. https://doi.org/10.1080/14719037.2013.769856

Bonß, W. (2015). Karriere und sozialwissenschaftliche Potenziale des Resilienzbegriffs. In M. Endreß & A. Maurer (Eds.), *Resilienz im Sozialen* (pp. 15-31). Wiesbaden: Springer Fachmedien.

Brockner, J., & Hayes James, E. (2008). Toward an understanding of when executives see crisis as opportunity. *The Journal of Applied Behavioral Science, 44*(1), 94-115.

Bruyaka, O., Philippe, D., & Castañer, X. (2018). Run away or stick together? The impact of organization-specific adverse events on alliance partner defection. *Academy of Management Review, 43*(3), 445-469. https://doi.org/10.5465/amr.2014.0323

Burrell, G., & Morgan, G. (2017). *Sociological paradigms and organisational analysis: Elements of the sociology of corporate life*. Abingdon - New York: Routledge.

Carlin, R. E., Love, G. J., & Zechmeister, E. J. (2014). Natural disaster and democratic legitimacy: The public opinion consequences of Chile's 2010 earthquake and tsunami. *Political Research Quarterly, 67*(1), 3-15.

Catino, M., & Patriotta, G. (2013). Learning from errors: Cognition, emotiopns and saftey culture in the Italian Air Force. *Organization Studies, 34*(4), 437-467.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London - Thousand Oaks - New Dehli: Sage Publications Inc.

Christianson, M. K., Farkas, M. T., Sutcliffe, K. M., & Weick, K. E. (2009). Learning through rare events: Significant interruptions at the Baltimore & Ohio Railroad Museum. *Organization Science, 20*(5), 846-860. https://doi.org/10.1287/orsc.1080.0389

Clegg, S. R., & Kornberger, M. (2006a). Organising space. In S. R. Clegg & M. Kornberger (Eds.), *Space, organizations and management theory* (pp. 143-162). Copenhagen: Liber and Copenhagen Business School Press.

Clegg, S. R., & Kornberger, M. (Eds.). (2006b). *Space, organizations and management theory*. Copenhagen: Liber and Copenhagen Business School Press.

Collins, H. (2004). Interactional expertise as a third kind of knowledge. *Phenomenology and the Cognitive Sciences, 3*(2), 125-143.

Comfort, L. K., Boin, A., & Demchak, C. C. (2010). *Designing resilience: Preparing for extreme events*. Pittsburgh: University of Pittsburgh Press.

Cornelissen, J. P., & Durand, R. (2014). Moving forward: Developing theoretical contributions in management studies. *Journal of Management Studies, 51*(6), 995-1022. https://doi.org/10.1111/joms.12078

Cornelissen, J. P., Mantere, S., & Vaara, E. (2014). The contraction of meaning: The combined effect of communication, emotions, and materiality on sensemaking in the Stockwell Shooting. *Journal of Management Studies, 51*(5), 699-736. https://doi.org/10.1111/joms.12073

Corradi, G., Gherardi, S., & Verzelloni, L. (2010). Through the practice-lens: Where is the bandwagon of practice-based studies heading? *Management Learning, 41*(3), 265-283.

Cosgrave, J. (1996). Decision making in emergencies. *Disaster Prevention and Management: An International Journal, 5*(4), 28-35.

CRED. (2018). *Economic losses, poverty & disasters: 1998 - 2017*. Retrieved from https://www.unisdr.org/we/inform/publications/61119

Danner-Schröder, A., & Geiger, D. (2016). Unravelling the motor of patterning work: Toward an understanding of the micro-level dynamics of standardization and flexibility. *Organization Science, 27*(3), 633-658.

Davoudi, S., Brooks, E., & Mehmood, A. (2013). Evolutionary resilience and strategies for climate adaptation. *Planning Practice and Research, 28*(3), 307-322. https://doi.org/10.1080/02697459.2013.787695

de la Chaux, M., Haugh, H., & Greenwood, R. (2018). Organizing refugee camps: "Respected Space" and "Listening Posts". *Academy of Management Discoveries, 4*(2), 155-179. https://doi.org/10.5465/amd.2017.0040

De Smet, H., Lagadec, P., & Leysen, J. (2012). Disasters out of the box: A new ballgame? *Journal of Contingencies and Crisis Management, 20*(3), 138-148. 10.1111/j.1468-5973.2012.00666.x

de Waard, E. J., Volberda, H. W., & Soeters, J. (2012). How to support sensing capabilities in highly volatile situations. *Journal of Management and Organization, 18*(6), 774-794.

Denzin, N. K., & Lincoln, Y. S. (2008). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The landscape of qualitative research* (3rd ed.). Los Angeles - London - New Dehli - Singapore: Sage Publications.

Dittrich, K., Guérard, S., & Seidl, D. (2016). Talking about routines: The role of reflective talk in routine change. *Organization Science, 27*(3), 678-697.

Drabek, T. E. (1985). Managing the emergency response. *Public Administration Review, 45*, 85-92.

Dutton, J. E. (1986). The processing of crisis and non-crisis strategic issues. *Journal of Management Studies, 23*(5), 501-517.

Edgeman, R., & Williams, J. A. (2014). Enterprise self-assessment analytics for sustainability, resilience and robustness. *The TQM Journal, 26*(4), 368-381.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal, 50*(1), 25-32.

Eisenhardt, K. M., Graebner, M. E., & Sonenshein, S. (2016). Grand challenges and inductive methods: Rigor without rigor mortis. *Academy of Management Journal, 59*(4), 1113-1123. https://doi.org/10.5465/amj.2016.4004

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes* (2nd ed. Vol. 2). Chicago - London: The University of Chicago Press.

Espinosa, J. A., Slaughter, S. A., Kraut, R. E., & Herbsleb, J. D. (2007). Team knowledge and coordination in geographically distributed software development. *Journal of Management Information Systems, 24*(1), 135-169.

Faraj, S., & Xiao, Y. (2006). Coordination in fast-response organizations. *Management Science, 52*(8), 1155-1169. https://doi.org/10.1287/mnsc.1060.0526

Farjoun, M. (2010). Beyond dualism: Stability and change as a duality. *Academy of Management Review, 35*(2), 202-225.

Feldman, M. S., & Orlikowski, W. J. (2011). Theorizing practice and practicing theory. *Organization Science, 22*(5), 1240-1253. https://doi.org/10.1287/orsc.1100.0612

Ferraro, F., Etzion, D., & Gehman, J. (2015). Tackling grand challenges pragmatically: Robust action revisited. *Organization Studies, 36*(3), 363-390.

Florian, M., Costas, J., & Kärreman, D. (2018). Struggling with meaningfulness when context shifts: Volunteer work in a German refugee shelter. *Journal of Management Studies, 0*(0). https://doi.org/10.1111/joms.12410

Foucault, M. (1973). *The order of things: An archaeology of the human sciences*. New York: Random House.

Frederickson, H. G., & LaPorte, T. R. (2002). Airport security, high reliability, and the problem of rationality. *Public Administration Review, 62*, 33-43.

Galbraith, J. (1973). *Designing complex organizations*. Boston, MA: Addison-Wesley Longman Publishing Co., Inc.

George, G., Howard-Grenville, J., Joshi, A., & Tihanyi, L. (2016). Understanding and tackling societal grand challenges through management research. *Academy of Management Journal, 59*(6), 1880.

Gephart Jr, R. P., & Pitter, R. (1993). The organizational basis of industrial accidents in Canada. *Journal of Management Inquiry, 2*(3), 238-252.

Gephart Jr., R. P. (2004). Qualitative research and the Academy of Management Journal. *Academy of Management Journal, 47*(4), 454-462.

Gephart Jr., R. P., Van Maanen, J., & Oberlechner, T. (2009). Organizations and risk in late modernity. *Organization Studies, 30*(2-3), 141-155. https://doi.org/10.1177/0170840608101474

Gibbert, M., & Ruigrok, W. (2010). The "what" and "how" of case study rigor: Three strategies based on published work. *Organizational Research Methods, 13*(4), 710-737.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods, 16*(1), 15-31.

Gioia, D. A., & Pitre, E. (1990). Multiparadigm perspectives on theory building. *Academy of Management Review, 15*(4), 584-602. https://doi.org/10.5465/amr.1990.4310758

Gkeredakis, E. (2014). The constitutive role of conventions in accomplishing coordination: Insights from a complex contract award project. *Organization Studies, 35*(10), 1473-1505. https://doi.org/10.1177/0170840614539309

Goodall Jr., H. L. (2008). *Writing qualitative inquiry: Selves, stories, and the new politics of academic success*. Walnut Creek: Left Coast Press Inc.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (Vol. 2, pp. 105-117). Thousand Oaks: Sage Publications.

Gundel, S. (2005). Towards a new typology of crises. *Journal of Contingencies and Crisis Management, 13*(3), 106-115.

Hällgren, M., Rouleau, L., & de Rond, M. (2018). A matter of life or death: How extreme context research matters for management and organization studies. *Academy of Management Annals, 12*(1), 111-153. https://doi.org/10.5465/annals.2016.0017

Hamel, G., & Välikangas, L. (2003). The quest for resilience. *Harvard Business Review, 81,* 52-63.

Hammersley, M. (1992). *What's wrong with ethnography?* London: Routledge.

Harrison, S. H., & Rouse, E. D. (2014). Let's dance! Elastic coordination in creative group work: A qualitative study of modern dancers. *Academy of Management Journal, 57*(5), 1256-1283.

Hermann, C. F. (1963). Some consequences of crisis which limit the viability of organizations. *Administrative Science Quarterly, 8*(1), 61-82.

Hermann, M. G., & Dayton, B. W. (2009). Transboundary crises through the eyes of policymakers: Sense making and crisis management. *Journal of Contingencies and Crisis Management, 17*(4), 233-241.

Hernes, T. (2004). *The spatial construction of organization* (Vol. 12). Amsterdam / Philadelphia: John Benjamins Publishing.

Holling, C. S. (1973). Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics, 4*, 1-23. https://doi.org/10.2307/2096802

Howard-Grenville, J., Buckle, S. J., Hoskins, B. J., & George, G. (2014). Climate change and management. *Academy of Management Journal, 57*, 615-623. https://doi.org/10.5465/amj.2014.4003

Hughes, A. L., & Palen, L. (2009). Twitter adoption and use in mass convergence and emergency events. *International Journal of Emergency Management, 6*(3-4), 248-260.

James, E. H., & Wooten, L. P. (2010). *Leading under pressure: From surviving to thriving before, during, and after a crisis*. Abingdon: Routledge.

James, E. H., Wooten, L. P., & Dushek, K. (2011). Crisis management: Informing a new leadership research agenda. *Academy of Management Annals, 5*(1), 455-493.

Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York: Simon & Schuster Inc.

Jarzabkowski, P. A., Le, J. K., & Feldman, M. S. (2012). Toward a theory of coordinating: Creating coordinating mechanisms in practice. *Organization Science, 23*(4), 907-927. https://doi.org/10.1287/orsc.1110.0693

Johansson, R., Danielsson, E., Kvarnlöf, L., Eriksson, K., & Karlsson, R. (2018). At the external boundary of a disaster response operation: The dynamics of volunteer inclusion. *Journal of Contingencies and Crisis Management, 26*(4), 519-529. https://doi.org/10.1111/1468-5973.12228

Jordan, S. (2010). Learning to be surprised: How to foster reflective practice in a high-reliability context. *Management Learning, 41*(4), 391-413.

Kalkman, J. P., Kerstholt, J. H., & Roelofs, M. (2018). Crisis response team decision-making as a bureau-political process. *Journal of Contingencies and Crisis Management, 26*(4), 480-490. https://doi.org/10.1111/1468-5973.12243

Kaniasty, K., & Norris, F. H. (1993). A test of the social support deterioration model in the context of natural disaster. *Journal of Personality and Social Psychology, 64*(3), 395.

Kellogg, K. C. (2009). Operating room: Relational spaces and microinstitutional change in surgery. *American Journal of Sociology, 115*(3), 657-711.

Kizu, T., Kühn, S., & Viegelahn, C. (2018). Linking jobs in global supply chains to demand. *International Labour Review, in press*. https://doi.org/10.1111/ilr.12102

Klohnen, E. C. (1996). Conceptual analysis and measurement of the construct of ego-resiliency. *Journal of Personality and Social Psychology, 70*(5), 1067-1079.

Knight, F. H. (1921). Risk, uncertainty and profit. *New York: Hart, Schaffner and Marx*.

Korac-Kakabadse, N., Kouzmin, A., & Kakabadse, A. (2002). Re-visiting crises from a resource-distribution perspective: Learning for local government? *Local Governance, 28*(1), 35-62.

Kornberger, M., Leixnering, S., & Meyer, R. E. (2019). The logic of tact: How decisions happen in situations of crisis. *Organization Studies, 40*(2), 239-266. https://doi.org/10.1177/0170840618814573

Kornberger, M., Leixnering, S., Meyer, R. E., & Höllerer, M. A. (2018). Rethinking the sharing economy: The nature and organization of sharing in the 2015 refugee crisis. *Academy of Management Discoveries, 4*(3), 314-335. https://doi.org/10.5465/amd.2016.0138

Kouzmin, A. (2008). Crisis management in crisis? *Administrative Theory & Praxis, 30*(2), 155-183.

La Porte, T. R., & Consolini, P. M. (1991). Working in practice but not in theory: Theoretical challenges of "high-reliability organizations". *Journal of Public Administration Research and Theory: J-PART, 1*(1), 19-48. https://doi.org/10.2307/1181764

La Porte, T. R., & Thomas, C. W. (1995). Regulatory compliance and the ethos of quality enhancement: Surprises in nuclear power plant operations. *Journal of Public Administration Research and Theory: J-PART, 5*(1), 109-137.

Lagadec, P. (2007). Crisis management in the twenty-first century:"Unthinkable" events in "inconceivable" contexts. In *Handbook of Disaster Research* (pp. 489-507): Springer.

Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review, 24*(4), 691-710.

Langley, A., Smallman, C., Tsoukas, H., & Van de Ven, A. H. (2013). Process studies of change in organization and management: Unveiling temporality, activity, and flow. *Academy of Management Journal, 56*(1), 1-13. https://doi.org/10.5465/amj.2013.4001

LaPorte, T. R., & Consolini, P. M. (1998). Theoretical and operational challenges of "High-Reliability Organizations": Air-traffic control and aircraft carriers. *International Journal of Public Administration, 21*(6-8), 847-852.

Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and environment: Managing differentiation and integration*. Boston: Havard Business School Press.

Lee, A. V., Vargo, J., & Seville, E. (2013). Developing a tool to measure and compare organizations' resilience. *Natural Hazards Review, 14*(1), 29-41.

Lee, S. (2019). Learning-by-moving: Can reconfiguring spatial proximity between organizational members promote individual-level exploration? *Organization Science, in press*. https://doi.org/10.1287/orsc.2019.1291

Longstaff, P. H. (2005). *Security, resilience, and communication in unpredictable environments such as terrorism, natural disasters, and complex technology.* Cambridge, USA.

Lorenz, D. F., Schulze, K., & Voss, M. (2018). Emerging citizen responses to disasters in Germany. Disaster myths as an impediment for a collaboration of unaffiliated responders and professional rescue forces. *Journal of Contingencies and Crisis Management, 26*(3), 358-367. https://doi.org/10.1111/1468-5973.12202

Luhmann, N. (2005). Haltlose Komplexität. In N. Luhmann (Ed.), *Soziologische Aufklärung 5: Konstruktivistische Perspektiven* (pp. 58-74). Wiesbaden: VS Verlag für Sozialwissenschaften.

Mach, K. J., Kraan, C. M., Adger, W. N., Buhaug, H., Burke, M., Fearon, J. D., . . . von Uexkull, N. (2019). Climate as a risk factor for armed conflict. *Nature*. https://doi.org/10.1038/s41586-019-1300-6

Maitlis, S., & Sonenshein, S. (2010). Sensemaking in crisis and change: Inspiration and insights from Weick (1988). *Journal of Management Studies, 47*(3), 551-580.

Majchrzak, A., Jarvenpaa, S. L., & Hollingshead, A. B. (2007). Coordinating expertise among emergent groups responding to disasters. *Organization Science, 18*(1), 147-161. https://doi.org/10.1287/orsc.1060.0228

Malone, T. W., & Crowston, K. (1994). The interdisciplinary study of coordination. *ACM Computing Surveys (CSUR), 26*(1), 87-119.

Mamouni-Limnios, E. A., & Mazzarol, T. (2011). *Resilient organisations: Offense versus defense.* Paper presented at the 25th Annual ANZAM Conference.

March, J. G., & Simon, H. A. (1958). *Organizations*. New York,: Wiley.

Masten, A. S., & Obradović, J. (2007). Competence and resilience in development. *Annals of the New York Academy of Sciences, 1094*(1), 13-27.

McFarlane, A. C., & Norris, F. H. (2006). Definitions and concepts in disaster research. In F. H. Norris, S. Galea, M. J. Friedman, & P. J. Watson (Eds.), *Methods for disaster mental health research* (pp. 3-19). New York: The Guilford Press.

Michaelis, A. R. (1972). *Disasters past and future*. London: Daily Telegraph.

Mintzberg, H. (2001). Managing exceptionally. *Organization Science, 12*(6), 759-771.

Müller-Seitz, G. (2014). Von Risiko zu Resilienz — Zum Umgang mit Unerwartetem aus Organisationsperspektive. *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung, 66*(68), 102-122. https://doi.org/10.1007/bf03373728

Normandin, J.-M., & Therrien, M.-C. (2016). Resilience factors reconciled with complexity: The dynamics of order and disorder. *Journal of Contingencies and Crisis Management, 24*(2), 107-118. https://doi.org/10.1111/1468-5973.12107

Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology, 41*(1-2), 127-150.

Okhuysen, G. A., & Bechky, B. A. (2009). Coordination in organizations: An integrative perspective. *The Academy of Management Annals, 3*(1), 463-502.

Olson, M. K., Sutton, J., Vos, S. C., Prestley, R., Renshaw, S. L., & Butts, C. T. (2019). Build community before the storm: The National Weather Service's social media engagement. *Journal of Contingencies and Crisis Management, in press*. https://doi.org/10.1111/1468-5973.12267

Ossewaarde, R., Nijhof, A., & Heyse, L. (2008). Dynamics of NGO legitimacy: how organising betrays core missions of INGOs. *Public Administration and Development: The International Journal of Management Research and Practice, 28*(1), 42-53.

Ouyang, M., & Dueñas-Osorio, L. (2014). Multi-dimensional hurricane resilience assessment of electric power systems. *Structural Safety, 48*, 15-24. https://doi.org/10.1016/j.strusafe.2014.01.001

Patriotta, G., & Gruber, D. A. (2015). Newsmaking and sensemaking: Navigating temporal transitions between planned and unexpected events. *Organization Science, 26*(6), 1574-1592. https://doi.org/10.1287/orsc.2015.1005

Pauchant, T. C., & Douville, R. (1993). Recent research in crisis management: A study of 24 authors' publications from 1986 to 1991. *Industrial & Environmental Crisis Quarterly, 7*(1), 43-66.

Pauchant, T. C., & Mitroff, I. I. (1992). *Transforming the crisis-prone organization: Preventing individual, organizational, and environmental tragedies*. San Francisco: Jossey-Bass.

Pauchant, T. C., Mitroff, I. I., & Ventolo, G. F. (1992). The dial tone does not come from God! How a crisis can challenge dangerous strategic assumptions made about high technologies: The case of the Hinsdale telecommunication outage. *Academy of Management Perspectives, 6*(3), 66-79.

Pearson, C. M., & Clair, J. A. (1998). Reframing crisis management. *Academy of Management Review, 23*(1), 59-76.

Perrow, C. (1984). *Normal accidents: Living with high-risk technologies*. New York: Basic Books.

Perrow, C. (1986). *Complex organizations: A critical essay* (3 ed.). New york.

Pina e Cunha, M., Clegg, S. R., & Kamoche, K. (2006). Surprises in management and organization: Concept, sources and a typology. *British Journal of Management, 17*(4), 317-329. https://doi.org/10.1111/j.1467-8551.2005.00470.x

Popper, K. R. (2005). *The logic of scientific discovery*. London; New York: Routledge Classics.

Quarantelli, E. L. (1988). Disaster crisis management: A summary of research findings. *Journal of Management Studies, 25*(4), 373-385. https://doi.org/10.1111/j.1467-6486.1988.tb00043.x

Quarantelli, E. L., & Dynes, R. R. (1977). Response to social crisis and disaster. *Annual Review of Sociology, 3*(1), 23-49.

Ramadan, A. (2013). Spatialising the refugee camp. *Transactions of the Institute of British Geographers, 38*(1), 65-77.

Romzek, B. S., & Dubnick, M. J. (1987). Accountability in the public sector: Lessons from the Challenger tragedy. *Public Administration Review*, 227-238.

Rosenthal, U., Boin, R., & Comfort, L. (2001). The changing world of crisis and crisis management. In U. Rosenthal, R. Boin, & L. Comfort (Eds.), *Managing crises: Threats, dilemmas, opportunities* (pp. 5-27). Springfield, IL: Charles C. Thomas.

Rosenthal, U., Charles, M. T., & 't Hart, P. (1989). *Coping with crises: The management of disasters, riots, and terrorism*. Springfield: Charles C Thomas Pub Ltd.

Roux-Dufort, C. (2007). Is crisis management (only) a management of exceptions? *Journal of Contingencies and Crisis Management, 15*(2), 105-114. https://doi.org/10.1111/j.1468-5973.2007.00507.x

Roux-Dufort, C., & Lalonde, C. (2013). Editorial: Exploring the theoretical foundations of crisis management. *Journal of Contingencies and Crisis Management, 21*(1), 1-3. https://doi.org/10.1111/1468-5973.12014

Schakel, J.-K., Fenema, P. C. v., & Faraj, S. (2016). Shots fired! Switching between practices in police work. *Organization Science, 27*(2), 391-410. https://doi.org/10.1287/orsc.2016.1048

Schatzki, T. R., Knorr-Cetina, K., & Savigny, E. v. (2001). *The practice turn in contemporary theory*. New York: Routledge.

Schmidt, A., Wolbers, J., Ferguson, J., & Boersma, K. (2018). Are you Ready2Help? Conceptualizing the management of online and onsite volunteer convergence. *Journal of Contingencies and Crisis Management, 26*(3), 338-349. https://doi.org/10.1111/1468-5973.12200

Schneider, A., Wickert, C., & Marti, E. (2016). Reducing complexity by creating complexity: A systems theory perspective on how organizations respond to their environments. *Journal of Management Studies*, 1-27. https://doi.org/10.1111/joms.12206

Schulman, P. R. (1993). The negotiated order of organizational reliability. *Administration & Society, 25*(3), 353-372.

Schwartz, H. S. (1987). On the psychodynamics of organizational disaster-the case of the space-shuttle Challenger. *Columbia Journal of World Business, 22*(1), 59-67.

Scott, W. R. (1994). Open peer commentaries on ‘accidents in high-risk systems’. *Technology Studies, 1*(1), 23-25.

Seybolt, T. B. (2009). Harmonizing the humanitarian aid network: Adaptive change in a complex system. *International Studies Quarterly, 53*(4), 1027-1050.

Shrivastava, P. (1992). *Bhopal - Anatomy of a crisis* (2 ed.). London: Paul chapman publishing Ltd.

Shrivastava, P. (1993). Crisis theory/practice: Towards a sustainable future. *Industrial & Environmental Crisis Quarterly, 7*(1), 23-42.

Siggelkow, N. (2007). Persuasion with case studies. *Academy of Management Journal, 50*(1), 20-24.

Smirl, L. (2008). Building the other, constructing ourselves: Spatial dimensions of international humanitarian response. *International Political Sociology, 2*(3), 236-253.

Smith, D. (1990). Beyond contingency planning: Towards a model of crisis management. *Industrial Crisis Quarterly, 4*(4), 263-275.

Snook, S. A. (2002). *Friendly fire: The accidental shootdown of US Black Hawks over Northern Iraq*: Princeton University Press.

Soden, R., & Palen, L. (2014). *From crowdsourced mapping to community mapping: The post-earthquake work of OpenStreetMap Haiti.* Paper presented at the COOP 2014-Proceedings of the 11th International Conference on the Design of Cooperative Systems, Nice.

Somers, S. (2009). Measuring resilience potential: An adaptive strategy for organizational crisis planning. *Journal of Contingencies and Crisis Management, 17*(1), 12-23.

Srivastava, S. B., Goldberg, A., Manian, V. G., & Potts, C. (2018). Enculturation trajectories: Language, cultural adaptation, and individual outcomes in organizations. *Management Science, 64*(3), 1348-1364. https://doi.org/10.1287/mnsc.2016.2671

Strauss, A. L., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Thousand Oaks: Sage Publications.

Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research techniques*. Thousand Oaks: Sage Publications.

Sturges, D. L. (1994). Communicating through crisis: A strategy for organizational survival. *Management Communication Quarterly, 7*(3), 297-316.

Suarez, F. F., & Montes, J. S. (2019). An integrative perspective of organizational responses: routines, heuristics, and improvisations in a Mount Everest expedition. *Organization Science, in press*. https://doi.org/10.1287/orsc.2018.1271

Suddaby, R. (2006). From the editors: What grounded theory is not. *Academy of Management Journal, 49*(4), 633-642.

Sutton, R. I., & Staw, B. M. (1995). What theory is not. *Administrative Science Quarterly, 40*(3), 371-384. https://doi.org/10.2307/2393788

Taylor, S., & Spicer, A. (2007). Time for space: A narrative review of research on organizational spaces. *International Journal of Management Reviews, 9*(4), 325-346.

Thompson, J. D. (1967). *Organizations in action: Social science bases of administrative theory*. New York: Mc Graw-Hill.

Tierney, K. (2014). *The social roots of risk: Producing disasters, promoting resilience*. Stanford: Stanford University Press.

Toole, M. J., & Waldman, R. J. (1997). The public health aspects of complex emergencies and refugee situations. *Annual Review of Public Health, 18*(1), 283-312. https://doi.org/10.1146/annurev.publhealth.18.1.283

Topper, B., & Lagadec, P. (2013). Fractal crises – A new path for crisis theory and management. *Journal of Contingencies and Crisis Management, 21*(1), 4-16. https://doi.org/10.1111/1468-5973.12008

Tranfield, D., & Starkey, K. (1998). The nature, social organization and promotion of management research: Towards policy. *British Journal of Management, 9*(4), 341-353.

Turner, B. A. (1976). The organizational and interorganizational development of disasters. *Administrative Science Quarterly*, 378-397.

Turner, S. (2016). What is a refugee camp? Explorations of the limits and effects of the camp. *Journal of Refugee Studies, 29*(2), 139-148. https://doi.org/10.1093/jrs/fev024

UN. (1951). *Convention relating to the Status of Refugees*.

UN. (2015). *Transforming our World: The 2030 Agenda for Sustainable Development*. (A/RES/70/1). New York: United Nations Retrieved from https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf.

UNDRR. (2019). *Global assessment report on disaster risk reduction*. Retrieved from Geneva: https://gar.unisdr.org/

UNHCR. (2019). *Global Trends - Forced Displacement in 2018*. Retrieved from https://www.unhcr.org/globaltrends2018/

UNISDR. (2015a). *Making Development Sustainable: The Future of Disaster Risk Management. Global assessment report on disaster risk reduction 2015—Making development sustainable:The future of disaster risk management.* Retrieved from Geneva: http://www.preventionweb.net/english/hyogo/gar/2015/en/gar-pdf/GAR2015_EN.pdf.

UNISDR. (2015b). *Sendai Framework for Disaster Risk Reduction 2015 - 2030*. Sendai: United Nations Office for Disaster Risk Reduction Retrieved from https://www.unisdr.org/we/inform/publications/43291.

Van de Ven, A. H., Delbecq, A. L., & Koenig Jr., R. (1976). Determinants of coordination modes within organizations. *American Sociological Review*, 322-338.

van der Vegt, G. S., Essens, P., Wahlström, M., & George, G. (2015). Managing risk and resilience. *Academy of Management Journal, 58*, 971-980. https://doi.org/10.5465/amj.2015.4004

Van Maanen, J. (2011). Ethnography as work: Some rules of engagement. *Journal of Management Studies, 48*(1), 218-234.

Van Maanen, J., Sorensen, J. B., & Mitchell, T. R. (2007). The interplay between theory and method. *Academy of Management Review, 32*(4), 1145-1154-1154.

Vogus, T. J., & Sutcliffe, K. M. (2007). *Organizational resilience: Towards a theory and research agenda.* Paper presented at the Systems, Man and Cybernetics, 2007. ISIC. IEEE International Conference.

Watson, T. J. (2011). Ethnography, reality, and truth: The vital need for studies of 'how things work' in organizations and management. *Journal of Management Studies, 48*(1), 202-217.

Weick, K. E. (1988). Enacted sensemaking in crisis situations. *Journal of Management Studies, 25*(4), 305-317.

Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly, 38*(4), 628-652. https://doi.org/10.2307/2393339

Weick, K. E. (2010). Reflections on enacted sensemaking in the bhopal disaster. *Journal of Management Studies, 47*(3), 537-550. https://doi.org/10.1111/j.1467-6486.2010.00900.x

Weick, K. E. (2011). Organizing for transient reliability: The production of dynamic non-events. *Journal of Contingencies and Crisis Management, 19*(1), 21-27. https://doi.org/10.1111/j.1468-5973.2010.00627.x

Weick, K. E., & Roberts, K. H. (1993). Collective mind in organizations: Heedful interrelating on flight decks. *Administrative Science Quarterly, 38*(3), 357-381. https://doi.org/10.2307/2393372

Weick, K. E., & Sutcliffe, K. M. (2007). *Managing the unexpected : Resilient performance in an age of uncertainty* (2nd edition ed.). San Francisco: Jossey-Bass.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (1999). Organizing for high reliability: Processes of collective mindfulness. *Research in Organizational Behavior, 21*, 81-123.

Weinfurtner, T., & Seidl, D. (2019). Towards a spatial perspective: An integrative review of research on organisational space. *Scandinavian Journal of Management, 35*(2), 1-30. https://doi.org/10.1016/j.scaman.2018.02.003

Werner, E. E. (1989). High-risk children in young adulthood: A longitudinal study from birth to 32 years. *American Journal of Orthopsychiatry, 59*(1), 72-81.

Westgate, K. N., & O'Keefe, P. (1976). *Some definitions of disaster*. Bradford, UK: University of Bradford. Disaster Research Unit.

Whiteman, G., & Cooper, W. H. (2011). Ecological sensemaking. *Academy of Management Journal, 54*(5), 889-911. https://doi.org/10.5465/amj.2008.0843

Wildavsky, A. B. (1988). *Searching for safety* (3rd edition ed. Vol. 10). New Brunswick, London: Transaction Publishers.

Williams, T. A., Gruber, D. A., Sutcliffe, K. M., Shepherd, D. A., & Zhao, E. Y. (2017). Organizational response to adversity: Fusing crisis management and resilience research streams. *Academy of Management Annals, 11*(2), 733-769. https://doi.org/10.5465/annals.2015.0134

Williams, T. A., & Shepherd, D. A. (2016). Building resilience or providing sustenance: Different paths of emergent ventures in the aftermath of the Haiti earthquake. *Academy of Management Journal, 59*(6), 2069-2102.

Wolbers, J., Boersma, K., & Groenewegen, P. (2018). Introducing a fragmentation perspective on coordination in crisis management. *Organization Studies, 39*(11), 1521-1546. https://doi.org/10.1177/0170840617717095

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Thousand Oaks, CA: Sage Publications, Inc.

Zanotti, L. (2010). Cacophonies of aid, failed state building and NGOs in Haiti: setting the stage for disaster, envisioning the future. *Third World Quarterly, 31*(5), 755-771. https://doi.org/10.1080/01436597.2010.503567

Zhang, F., Welch, E. W., & Miao, Q. (2018). Public organization adaptation to extreme events: mediating role of risk perception. *Journal of Public Administration Research and Theory, 28*(3), 371-387.

Essay I

Beyond "Bouncing Back": Towards an Integral, Capability-Based Understanding of Organizational Resilience

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Abstract

Academic debates surrounding the notion of resilience still face dissent about definitions, contexts, and managerial implications. By summarizing recent literature on resilience, this paper reveals two dominating paradigms, which I label the *Plan to Resist Approach* and the *Containing Crisis Approach*. By pinpointing and challenging the underlying assumptions of both approaches, I elucidate their potential shortcomings. To overcome these limitations, I develop an integral, capability-based concept of organizational resilience, which builds on a temporal perspective on crises. Thereby it highlights the importance of enacting different yet specific capabilities at different phases of crises. This concept allows integrating the insights of the reviewed literature and sheds light on the recovery phase as being a so far neglected aspect in resilience research.

Introduction

Societies around the world are facing increasing numbers of adverse events (UNISDR, 2015), and being able to prepare for and rebound from those events is one of the major challenges of our times (van der Vegt, Essens, Wahlström, & George, 2015). For organizations, it is sometimes assumed that disasters represent "the new normal" (Tierney, 2014:

238). In this context, resilience has become a desirable characteristic for individuals, communities, corporate organizations, and public authorities. The concept of resilience has attracted a substantial amount of research, resulting in divergent discourses among various scientific disciplines and practitioner communities (Boin & van Eeten, 2013: 430; Normandin & Therrien, 2016: 107). Early scientific conceptualizations refer to resilience as "a measure of persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations" (Holling, 1973: 14).

Psychology scholars tend to use resilience as "a descriptive label […] [for] individuals who appear to function surprisingly well under environmental conditions judged to be adverse and stressful" (Klohnen, 1996: 1068). This understanding of resilience maintains its original connotation of persistence.

Aaron Wildavsky introduced the term *resilience* into the broader social sciences. He distinguished between anticipation, defined as making an effort to "predict and prevent potential dangers *before* damage is done […and…] resilience as the capacity to cope with unanticipated dangers *after* they have become manifest, learning to *bounce back*" (Wildavsky, 1988: 61). Now, 30 years later, we find many proposals building on the same idea, using terms such as *offense* and *defense* resilience (Mamouni-Limnios & Mazzarol, 2011), *active* and *passive* resilience (Somers, 2009), or *basic* and *reflexive* resilience (Bonß, 2015). However, "it is fair to say that we have not moved very far beyond the territory staked out by Wildavsky" (Boin, Comfort, & Demchak, 2010: 7). There is still confusion about analytical levels ranging from individuals to teams and organizations to networks. It remains difficult even to reach a shared agreement about the basic characteristics of events that require resilience, as understandings of the concept remain vague (Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017). Due to its latent character, resilience can only be attributed to organizations after they have successfully mastered surprising shocks. Consequently, we

face empirical problems in terms of access to organizations, while they are facing crises and operationalization of benchmarks (Boin & van Eeten, 2013: 432; van der Vegt et al., 2015: 976).

In this study, I will argue that we need to transcend this fragmented notion of resilience and use the term as a "conceptual umbrella" (Masten & Obradović, 2007: 14) instead. The umbrella metaphor supports a processual understanding of resilience (Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008: 130). Hence, an integral, capability-based understanding of organizational resilience promotes the idea that to cope successfully with crises; organizations need to enact varying practices during different phases that occur before, during, and after the onset of crises. Only by devoting attention to these practices and their interplay throughout the different phases of crises will we be able to expand out theoretical grounding of the concept of resilience.

This study proceeds as follows: Section 2 begins with a review of recent literature on resilience that encourages organizations to strengthen their resistance to crises as an effective way of enhancing resilience. This *Plan to Resist Approach* builds on the underlying assumption that better foresight helps to mitigate risks – an assumption that will be challenged (Alvesson & Sandberg, 2011). Section 3 outlines major findings from the research on high-reliability organizations (HROs), which are commonly regarded as role models for resilient organizations (Boin & van Eeten, 2013). A closer examination of this literature will reveal the underlying assumptions of this Containing Crisis Approach and discuss its empirical and theoretical shortcomings. In section 4, I develop an integral, capability-based framework of organizational resilience that enables integrating both approaches. This integration, however, reveals a blind spot that has so far not received significant attention in resilience research: the recovery phase. As I will argue, future research in this area should not conceptualize resilience as bouncing back but rather as a form of achieving a new normal. Finally, in

section 5, I outline future avenues for empirical research, especially with regard to the recovery phase and potential problems that may accompany these research efforts.

Resilience as Plan to Resist

Literature on resilience is spread across many disciplines. A closer review reveals that many conceptual as well as empirical studies point to the importance of strengthening an organization's resistance against potential threats. The following section outlines the central findings of this literature and discusses its merits as well as its potential limitations.

Avoid Crisis before it happens

An important stream in resilience research is concerned with identifying risks and vulnerabilities. This research promotes the improvement of risk assessment and planning capabilities to mitigate and prepare for potential crises (Aigbogun, Ghazali, & Razali, 2014; Albrito, 2012; Aldrich & Meyer, 2014; Edgeman & Williams, 2014; Jaaron & Backhouse, 2014; Lee, Vargo, & Seville, 2013; Mallak, 1998; McManus, Seville, Vargo, & Brunsdon, 2008; Norris et al., 2008).

In this vein, the effective management of vulnerabilities is a key competence and plays an essential role in increasing an organization's resistance (Longstaff, 2005: 25). Hence, organizations need to assess their entire operating environment and identify keystone vulnerabilities (Lee et al., 2013; McManus et al., 2008). Identifying these vulnerabilities requires organizations to be aware of the shared assumptions that underlie their perceptions of risk (Christmann, Ibert, Kilper, & Moss, 2012).

Norris et al. (2008: 132) argue: "The ideal outcome after the crisis is resistance, meaning that the resources have effectively blocked the stressor and, accordingly, there is virtually no dysfunction, no matter how temporary." Hence, resources need to be "robust, redundant,

or rapidly accessible" (Norris et al., 2008: 142). One important resource that can strengthen resistance is social capital: "Local people must be engaged meaningfully in every step of the mitigation process" (Norris et al., 2008: 143) because extensive social capital can provide information, financial resources, and emotional and psychological support (Aldrich & Meyer, 2014). The distribution of these supportive resources is usually determined by someone's embeddedness in his community, his political connections, or social class (Kaniasty & Norris, 1995). Therefore, it is useful to strengthen existing bonds (Bonß, 2015) on both the individual level and community level, as these bonds can also facilitate long-term recovery (Hawkins & Maurer, 2010).

Another take on the matter of resistance has identified governance structures and decision-making processes as being important to improving resilience (Somers, 2009). With regard to decision-making processes, Houston, Spialek, Cox, Greenwood, and First (2014) highlight the importance of implementing communication processes to ensure shared understandings and mutually accepted group-level decisions. Thereby, they support the relevance of the communicative act of sensemaking before and during a crisis, and they show that institutions need to be aware of this issue in their planning processes (Hutter & Kuhlicke, 2013). Albrito (2012) proposes to provide technical infrastructure and to establish precautionary measures such as bundling responsibilities and providing an appropriate amount of resources. Prioritizing these resistance-increasing measures is said to be more cost-effective when compared to the costs of disaster relief (Albrito, 2012: 294). In regard to establishing and sustaining resilient governance structures, organizations need to be aware of the heterogeneous actors that might be involved. For example, disaster response resources may be dispersed and therefore difficult to mobilize in the event of a crisis. (Chen, Chen, Vertinsky, Yumagulova, & Park, 2013).

Whereas preparedness is sometimes understood from a resource-based perspective, it can also be understood as a social learning capacity (Davoudi, Brooks, & Mehmood, 2013: 311). Even in complex systems, organizations are able to anticipate potential risks. Thus, they can consciously influence their environment and thereby diminish, sustain, or enhance their own resilience (Davoudi et al., 2013: 312).

At their cores, all these approaches follow a similar argumentative pattern: Improving risk assessment and planning capacities will strengthen an organization's resistance and thereby increase its resilience. Reducing vulnerabilities and mitigating risks in such a way that certain incidents do not evolve into crises sounds promising, and practical examples of this approach are ubiquitous: Fire protection systems in public and private buildings, coastal protection measures in northern Germany, and security schemes at large-scale events have all proven to be effective at preventing crises.

However, this approach relies on specific assumptions concerning the assessability of risks, and those assumptions have certain important limitations.

Above Risk Waits Uncertainty

Research on resilience that promotes the idea of mitigation and preparedness fundamentally relies on a quantitative conception of risk.

> "[Risk] is assumed to exist in "real" form […], and this reality can be assessed by determining the "real" probability of an adverse event multiplied by the true magnitude and severity of consequences" (Gephart Jr., Van Maanen, & Oberlechner, 2009: 143).

Determining this probability requires complex statistical calculations based on prior experiences and available information about the environment (Müller-Seitz, 2014: 82). Thus, organizations that want to increase their resilience by strengthening their resistance need elaborate systems of risk assessment. From a quantitative perspective, improving risk assessment

therefore requires including more and more information, which must be retrieved from the organization and its environment.

However, prioritizing this approach to resilience has severe shortcomings. Even the most elaborate risk assessment is tied to potential threats that need to be known in advance. Those threats can originate inside and outside the focal organization (Anheier & Moulton, 1999; U. Beck & Holzer, 2007; Gephart Jr. et al., 2009; La Porte & Consolini, 1991). Nevertheless, due to the incorporation of human fallibility and natural forces into technological and highly interrelated systems, even minor mishaps can easily unfold into devastating events (U. Beck, 1992; U. Beck & Holzer, 2007; Gephart Jr. et al., 2009; Rosenthal, Boin, & Comfort, 2001: 8). Hence, geographical borders no longer bind the potential consequences: Risk has become omnipresent, interconnected, and arbitrary (U. Beck, 1986; Luhmann, 1990; Slovic, 1987). Consequently, as the number of required variables becomes unmanageable, conservative risk assessment progressively reaches its limited capacity to reliably anticipate risks. Trying to include more and more sources of information paradoxically implies a loss of information. In summary, risk assessment is a complex social process that is affected and limited by individual characteristics, cognitive capacities, and micro-political processes (Alchian, 1950; Luhmann, 2005; Slovic, 1987; Slovic, Finucane, Peters, & MacGregor, 2004).

In practice, prioritizing risk assessment may cause some serious problems. Relying on pre-planned structures, roles, and routines may lead to the creation of blind spots, ignorance of small errors, and a biased search for evidence (Schulman, 1993: 364; Weick & Sutcliffe, 2007: 23). Furthermore, the allocation of redundant resources can – as has been shown – lead to rigidity (Schakel, Fenema, & Faraj, 2016; Weick, 1993). Moreover, if those resources are not deployable in the event of an unanticipated situation, they can induce high costs as well as contestation of their legitimacy (Wildavsky, 1988: 64).

Instead of trying to improve risk assessment, we have to acknowledge that organizations and their environments are characterized by an inherent residuum of uncertainty, which cannot be assessed (Kaufmann, 2013; Luhmann, 1995; Müller-Seitz, 2014; Normandin & Therrien, 2016). Hence, uncertainty – in the form of "unknown unknowns" (Norris et al., 2008: 132; Rumsfeld, 2002: 3) or black swans (Taleb, 2007: 1); potential threats we do not know exist – fundamentally threatens the operation of organizations. Hence, a meaningful conceptualization of resilience cannot be blind to uncertainty but rather needs to integrate uncertainty into its understanding. As research has convincingly shown, uncertainty prevails and cannot be reduced by better planning and more information/analysis. Thus, uncertainty contains the constant potential for crises and threatens the survival of organizations.

To sum up, favouring mitigation and preparedness seems applicable to relatively stable settings where predictable events occur on a regular basis (Boin & McConnell, 2007: 52; Longstaff, 2005: 2). However, we need to take into account the inherent limitations of risk assessment described above. An integral understanding of resilience has to acknowledge the implications of uncertainty as a potential source of crises.

Resilience as Containing Crises

A second stream of research regards HROs as role models for resilient organizations (Boin & van Eeten, 2013). HROs are commonly understood as reluctant to rely solely on mitigation and preparedness; they also acknowledge uncertainty as an inherent part of their operations. Research into these organizations has shown that they have developed organizational practices that help them to address unexpected situations and to deviate from prescribed plans. The section below outlines the major findings of this research and discusses its potential shortcomings.

High-Reliability Organizations as Role Model

Rather than promoting preparedness and mitigation, HROs regard the

> "essence of resilience […as…] the ability of an organization to maintain […] or regain a dynamically stable state, which allows to continue operations after a major mishap and/or in the presence of continuous stress" (Weick & Sutcliffe, 2007: 14).

A major focus of HROs is to prevent failures from happening because, almost by definition, they cannot rely on trial-and-error operations. Even a minor failure can "mean the loss of critical societal functions and cause severe damage, threatening thousands of lives" (Boin & van Eeten, 2013: 432). Although they operate in demanding work environments with little to zero tolerance of errors, they maintain surprisingly stable operations. Hence, they are regarded as resilient organizations.

Many empirical studies aim to identify the specific organizational practices that account for highly reliable operations in the face of adversity (Bechky & Okhuysen, 2011; Bigley & Roberts, 2001; Danner-Schröder & Geiger, 2016; de Waard, Volberda, & Soeters, 2012; Frederickson & LaPorte, 2002; Rochlin, La Porte, & Roberts, 1998; Weick & Roberts, 1993).

Most of the findings concerning HROs reveal practices that can be categorized under one of the "five hallmarks" of HROs (Leveson, Dulac, Marais, & Carroll, 2009: 228). These hallmarks ensure mindful and reliable operations under conditions of stress and adversity (Weick & Sutcliffe, 2006). The first hallmark stresses the importance of monitoring operations for minor deviations to avoid complacency; this is especially important during long periods of success. HROs encourage employees to report on even small failures in order to prevent cascading effects and to learn from those failures (Weick & Sutcliffe, 2007: 9).

Closely related to that is the second hallmark, which points to the importance of frontline workers and their technical competence. The embeddedness of these workers enables them to detect even the slightest variances at a very early stage. Thus, management needs to give priority to these workers' alert messages and provide them with sufficient resources (Weick & Sutcliffe, 2007: 12). Moreover, frontline workers play an important role in promoting safety as a core value (Boin & van Eeten, 2013: 433).

The third hallmark refers to the ability to prevent the manifestation of narrow-minded perceptions of reality. Essentially, conceptual slack (Schulman, 1993) and creating expectancy frameworks (Patriotta & Gruber, 2015) both promote the use of divergent analytical perspectives to avoid blind spots. Building on earlier experiences may help organizations to detect and form responses to the slightest deviations. Organizations need to scan their environments broadly and generate a set of contextual interpretations that will allow for better decision-making .(Weick & Sutcliffe, 2006: 516).

Furthermore, the fourth hallmark points to the capabilities of improvisation and bricolage. It is commonly agreed that improvisation and bricolage facilitate responses to unexpected events under challenging circumstances (Bechky & Okhuysen, 2011; Bigley & Roberts, 2001; Van de Walle, 2014; Weick, 1993). Both occur "when design and execution of novel activities converge" (Baker, Miner, & Eesley, 2003: 255). According to Bigley and Roberts (2001), organizations constantly oscillate between preplanned practices and improvisation. For organizations wanting to enable bricolage, Weick (1993: 638) and Van de Walle (2014: 10) emphasize the importance of individual experience and tacit knowledge, which are not accessible via formal knowledge repositories. Therefore, it is important to develop socio-cognitive resources (Bechky & Okhuysen, 2011). These socio-cognitive resources demand strategic human-resource management to ensure that employees possess sufficient cognitive, behavioral, and contextual abilities (Lengnick-Hall, Beck, & Lengnick-Hall, 2011: 247).

As discussed in the plan-to-resist- literature, governance and decision-making play a major role in HROs as well, which is reflected in the fifth hallmark. La Porte and Consolini (1991); LaPorte and Consolini (1998) depict the interplay between maintaining and changing structures and decision-making processes. HROs are able to switch immediately among hierarchical order, standard operating procedures, and shifting authority to functional experts. Thereby, organizations are able to direct their actions based on the latest information and best available expertise. They exploit efficiency and control benefits while remaining adaptive to the situation and overcoming inertia. Another aspect of governance is effective coordination. Faraj and Xiao (2006) reveal that dealing with unexpected trajectories involves dialogic coordination in the form of protocol-breaking and joint sensemaking. However, switching between different modes of governance and coordination may be not as easy as it sounds. Especially in situations that require a timely response, the alteration of practices may be impaired due to relational ambiguity or team composition (Schakel et al., 2016).

Taking into consideration that adverse events can affect globally interlinked and complex networks of organizations (Berthod, Müller-Seitz, & Sydow, 2014: 141), the discourse has expanded from high-reliability organizations to high-reliability networks (HRNs) (Berthod, Grothe-Hammer, Müller-Seitz, Raab, & Sydow, 2017). Critical public infrastructures have undergone an unprecedented "institutional restructuring" (De Bruijne & Van Eeten, 2007: 19) caused by privatization and deregulation. Consequently, the provision of essential supplies and services is often left to networks of private and public organizations. Although collaboration in networks may help to master environmental uncertainty, the emerging interdependencies themselves may increase internal uncertainty (Sydow, Müller-Seitz, & Provan, 2013: 3). This situation might be exacerbated in HRNs where not all participating organizations are necessarily HROs (Berthod, Grothe-Hammer, & Sydow, 2015: 26) and where competing interests and management logics create additional challenges (De Bruijne

& Van Eeten, 2007: 19). Therefore, the situation-specific alternation between different governance modes in those networks has been identified as crucial to ensuring reliable operations (Berthod et al., 2017).

Taken together, HROs and HRNs are able to ensure reliable operations under challenging circumstances. They are very sensitive to their operations and environment and respond quickly to unexpected situations. In this way, they are able to contain threats before those threats turn into crises. Nevertheless, as I will argue in the next section, research on HROs and HRNs faces some empirical and theoretical challenges (La Porte, 1996; Leveson et al., 2009; Rijpma, 2003).

The Disparities Between Reliability and Resilience

HROs have accepted uncertainty as a basic condition of their everyday operations (Leveson et al., 2009; Sutcliffe & Vogus, 2003). Uncertainty is relevant at two different points in time: (a) before the actual manifestation of a crisis and (b) during a crisis. Hence, organizations are required to constantly assess their operations and scan for the slightest variances in their environment (Weick, 1988; Weick & Sutcliffe, 2007: 63). In cases of crisis, organizations' response activities are fraught with a high degree of uncertainty because organizations cannot completely predict which effects their measures will have. Either way, uncertainty cannot actively be diminished, and organizations have to cope with adversity as it materializes (Alchian, 1950: 212; Kahneman & Tversky, 1982: 4). Acknowledging this fundamental characteristic of organizational reality prompts organizations to shift their management focus from prioritizing planning to expecting the unexpected (Bechky & Okhuysen, 2011).

As shown above, there have been tremendous efforts to advance our insights into the routines and practices that enable organizations to cope with unexpected situations. Nonetheless, empirical studies share a number of additional assumptions that limit – to a certain extent – their contributions to an integral understanding of organizational resilience.

First, the term high-reliability organization is used very broadly. It is applied to a variety of entities such as aircraft carriers (LaPorte & Consolini, 1998), fire brigades (Bigley & Roberts, 2001), or nuclear power plants (La Porte & Thomas, 1995), which are obviously quite different in their specific, detailed characteristics. The challenges facing aircraft carriers or nuclear power plants are fundamentally different from those facing fire brigades, which are regularly confronted with unexpected situations. Aircraft carriers or nuclear power plants must maintain their operations at a constant level; due to their tightly coupled technological systems, they have only minimal tolerance to deviations (Perrow, 1999: 90). Therefore, preventing failure and containing upcoming threats are of utmost importance, as even small declines in performance may cause serious damage (Weick, Sutcliffe, & Obstfeld, 1999). Nevertheless, the ability to withstand adversity does not imply that these entities are equally able to recover from crises swiftly. For example, as the breakdown of the nuclear power plant in Fukushima revealed, operators were perfectly able to apply their rehearsed emergency procedures at the beginning of the disaster. However, the situation turned into a crisis when the operators had to adapt to unforeseen problems and multiple actors became involved (Aoki & Rothwell, 2013).

A second issue is that power plants and similar tightly coupled systems have strictly specified organizational purposes that are almost immutable; they constitute highly complex technological systems with rigid resources, and they provide goods that are fundamentally important for society. Hence, the purpose of such organizations cannot be changed easily, and therefore their response options are limited. Thus, they need to focus on avoiding internal errors and resisting external disturbances. By contrast, fire brigades, for example, are familiar with being exposed to volatile task environments with multiple response options dependent on the situation they are facing. Consequently, they have developed practices and routines (Bechky & Okhuysen, 2011; Bigley & Roberts, 2001; Danner-Schröder & Geiger,

2016; Patriotta & Gruber, 2015) to adapt to constantly changing demands. However, as surprises become less surprising (Bechky & Okhuysen, 2011: 257), dealing with adverse situations does not necessarily constitute a crisis for HROs themselves. More mundane organizations that do not operate under volatile circumstances on a regular basis may experience a loss of meaning due to mental and emotional overload in the moment an unexpected situation occurs (Norris et al., 2008). Therefore, some questions remain unanswered regarding the transferability of the insights from HROs to other organizations.

Nevertheless, research on HROs and other organizations that regard uncertainty as a basic condition for their operations has generated valuable insights into how to sense potential threats at a very early stage, how to prevent and contain small errors or disturbances, and how to absorb strains.

Criterion	Plan to Resist	Containing Crisis
Mind-Set towards Threat	Threat as calculable risk	Threat is inherent in a complex and uncertain world
Central Implications	Improve risk assessment to resist adversity	Establish organizational practices to detect and contain threats promptly
Level of Analysis	Communities, cities, regions, systems	Individuals, teams & networks
Phase of Crisis	Pre-crisis	Pre-crisis & Response
Definition of Resilience	Resisting potential threats	Maintain core functions while facing adversity and recover quickly from disturbances
Definition of Adversity	Sudden shocks (related to natural hazards or terror attacks)	Unexpected deviations & constant exposure to dangerous environments

Table I. 1: Comparison: Plan to Resist Approach & Containing Crisis Approach

In summary, Table I. 1 contrasts the Plan to Resist Approach and the Containing Crisis Approach along central criteria. The table presents the main differences in these approaches with regard to their underlying definitions, analytical focuses, and theoretical groundings.

Nonetheless, we have only limited knowledge of how organizations experience and address situations that force them to confront crises. Especially with regard to the process of bouncing back from crisis, important questions remain unanswered, as I will argue in the following section.

Organizational Resilience as an Integral, Capability-Based Process

Crisis as Starting Point

Both of the approaches discussed above have their merits and contribute to our understanding of organizational resilience. The first enables organizations to strengthen their resistance against potential threats and thus reduce the potential devastations caused by such events. The latter has revealed a variety of practices that enable organizations to detect the slightest deviations in their operations, to prevent small errors from escalating, to manage unexpected situations, and to deviate from prescribed trajectories when necessary.

However, the notions of resilience and crisis are necessarily intertwined. It is commonly accepted that crises can be conceptualized as singular events in time (Aldrich & Meyer, 2014; Holling, 1973; McFarlane & Norris, 2006; Williams et al., 2017). This conceptualization implies a separation into different temporal phases: before, during, and after crises. This temporal differentiation allows us to "assign order and rationality to the very messy, complex reality of natural or technological disasters, and human responses to them" (Richardson, 2005: 27) and is therefore suitable for guiding disaster management strategies. The commonly agreed-upon phase model – the Comprehensive Emergency Management (CEM) model by the United States National Governors' Association (1979) – differentiates among four different phases: mitigation, preparedness, response, and recovery (Boin et al., 2010; Cronstedt, 2002; Khan, Vasilescu, & Khan, 2008). This differentiation already indicates the

significance of resistance and containment while also highlighting the importance of recovery. Looking at this model through a temporal lens reveals that it also differentiates the phases before, during, and after crisis, as mitigation and preparedness both refer to activities before a crisis.

Based on this temporal separation, an integral, capability-based understanding of resilience, see Figure I. 1, allows assigning the Plan to Resist Approach as well as the Containing Crisis Approach to distinct phases of crises, thus strengthening the equal importance of both approaches.

As noted in section 2, the Plan to Resist Approach has proven to be useful in preparing organizations to withstand events that occur with a certain degree of regularity and whose adverse effects can be estimated roughly, for example, floods or thunderstorms. By improving planning capabilities, organizations become more resistant, and the likelihood of potentially dangerous situations turning into crises decreases. Hence, this approach plays a crucial role in the pre-crisis phase.

The Containing Crisis Approach enables organizations to avoid and address unexpected adversities in the moment they occur despite preemptive measures. Some of the practices described in section 3, such as heedful interrelating (Weick & Roberts, 1993), play an important role in preempting internal crises from happening by avoiding man-made errors. However, the consequences of external crises can also be avoided to some extent by permanently reassessing environmental developments and adjusting organizational responses (Schulman, 1993). Organizations can contain these disruptions and prevent themselves from sliding into a crisis by enacting targeted countermeasures at a very early stage. Taking this into account, these practices play a major role in managing unexpected events as they are happening. Altogether, the Containing Crisis Approach is mainly relevant at the onset of an actual crisis (Figure I. 1(1)). Beyond that, it has also implications for the pre-crisis phase as

organizations engage in continuously producing "non-events" (Weick, 2011: 21), or almost failure-free operations.

The theoretical implication of this model is that both approaches need to be regarded as functional equivalents (Schreyögg, 1991). Organizations need both, sophisticated risk assessment and planning capabilities to avoid potential threats or reduce the impact of those threats, and the ability to respond and adapt to sudden shocks in order to contain hazardous effects. Prioritizing one approach or the other neglects the potential interdependencies between the different phases and the capabilities required to manage them. In sum, an integral of resilience can be regarded as a "conceptual umbrella" (Masten & Obradović, 2007: 14) that covers the different phases of crisis and their associated capabilities.

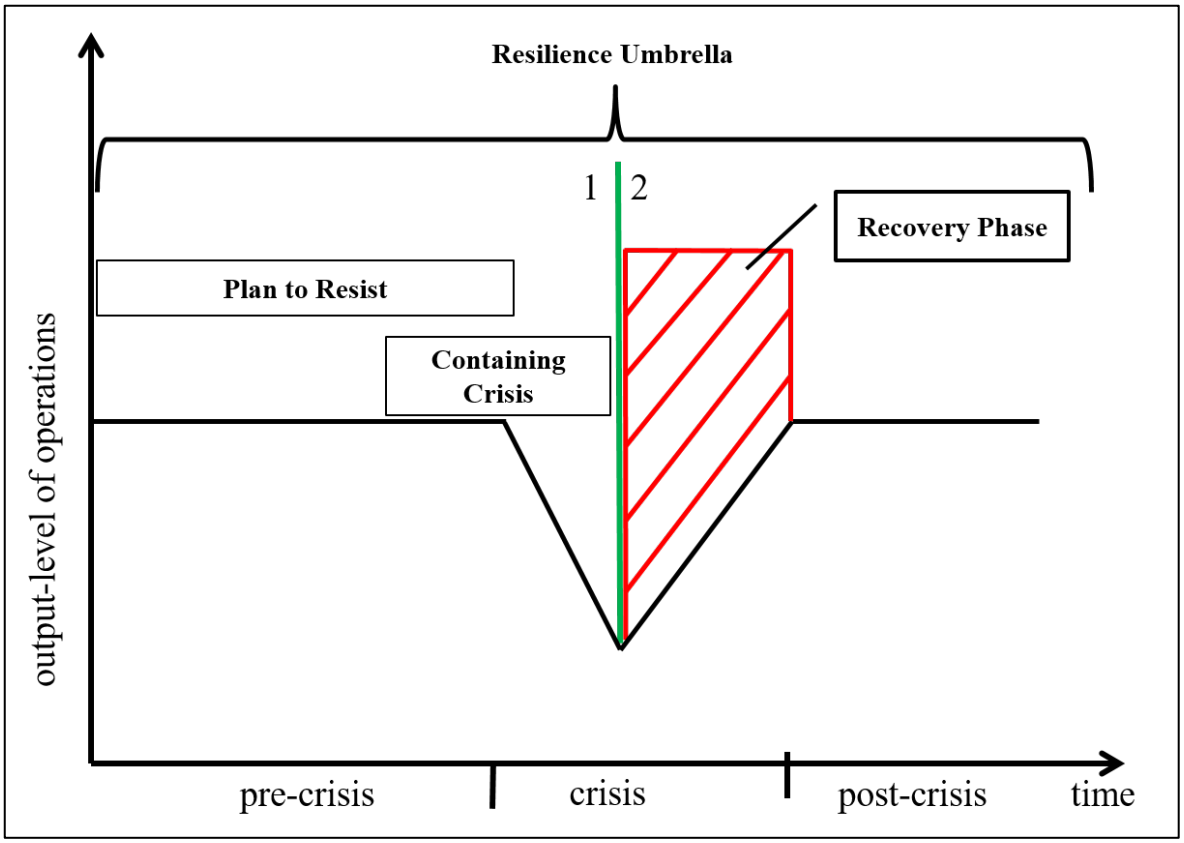

Figure I. 1: An Integral, Capability-Based Understanding of Organizational Resilience

By integrating the two approaches into an integral, capability-based model of organizational resilience, we simultaneously shed light on a gap that Boin and van Eeten (2013: 431) refer

to as "recovery resilience". At present, recovery activities are commonly understood as long-term-oriented. They "require analytic, evaluative, and policymaking skills" (NGA, 1979: xv) to evaluate response measures and identify best practices (Boin et al., 2010: 4) that may improve mitigation and preparedness.

However, recovery also has short-term implications. When preplanned structures and resources are overstretched and response activities are not able to contain an upcoming threat, organizations need to turn the chaotic circumstances of a crisis into manageable trajectories, stop deterioration, and initiate a return to normalcy. To address the associated consequences – the destruction of the preexisting social-political order ('t Hart, 1993: 39); the general threatening of the organization's survival (Boin & van Eeten, 2013: 430); or a threat to life-sustaining systems that requires immediate reaction (Rosenthal, Charles, & 't Hart, 1989: 10) – organizations need short-term-oriented recovery measures to become operational again (Kendra & Wachtendorf, 2003). This phase is conceptually different from the response phase. It entails different tasks and requires organizations to enact other capabilities and practices than those required to contain a crisis. At the turning point of a crisis, this phase is about adapting old structures or building completely new structures and processes. It is a phase that is no longer solely about reactive but also about proactive activities, about overcoming the status of crisis.

For an integral, capability-based understanding of organizational resilience, short-term recovery (Figure I. 1(2)) therefore constitutes a distinct phase of its own. This phase needs to be considered just as important as improved risk assessment and the capacity to contain a crisis.

Bouncing Back in a Complex World

What is so difficult about recovery is that it is commonly perceived as "bouncing back" (Wildavsky, 1988: 61). Organizations are labelled as resilient if they are able to rebound

from crisis promptly and return to their initial state. This outcome-centered perspective may be deceptive and thereby hinder the theoretical advancement of resilience as an integral, capability-based concept for three reasons:

First, bouncing back conveys the notion of an easily definable status quo that needs to be rebuilt. However, if we understand organizations as "unpredictable, incomprehensible, indeterminate, [and] unorganized" (Doerfel & Prezelj, 2017: 118) systems, it is nearly impossible to define a status quo that can be reestablished. Seen this way, organizations may be in a constant state of minor adjustment to internal and external changes that may "have ramifications and implications beyond those initially imagined or planned" (Tsoukas & Chia, 2002: 568). Organizations that try to bounce back by simply replicating former processes may experience conflicting results (D'Adderio, 2014: 1347) because of a serious misfit between the old status quo and new environmental conditions. Following this line of thought, a crisis would never end because organizations would always fail to reestablish the prior status quo.

Second, bouncing back creates the impression that only one desirable outcome exists. Yet, if we conceptualize crises as a processual, cascading phenomenon (Pescaroli & Kelman, 2017), organizations will need to respond to ongoing changes. While recovery activities are ongoing, organizations may need to restructure their processes and reformulate their aims (Gunderson, 2000). Hence, a desired outcome that was postulated at the onset of a crisis may become obsolete. Nevertheless, the extent to which organizations can adapt to ongoing crises is highly dependent on the type of organization. Whereas corporate organizations may have many opportunities to overcome crisis by adapting or changing their business models, critical infrastructures or public authorities may face a narrow corridor of potential solutions.

Third, bouncing back as a measure of resilience "would amount to backtracking in time" (Boin et al., 2010: 8). How long should it take to evaluate whether an organization is resilient

and at what point do we conclude that an organization is non-resilient? Do we apply different time horizons to different types of crises and different types of organizations? Answers to those questions would be arbitrary and thus, are not conducive to a theoretical conceptualization.

The arguments discussed above contest the outcome-oriented perspective on resilience commonly known as bouncing back. In other words, bouncing back as a measure of resilience may be misleading. When crises are "a potentially traumatic event that is collectively experienced" (McFarlane & Norris, 2006: 4), resilience as a describable outcome can only be the achievement of a collectively felt state of new normalcy, which cannot be defined ex ante. Moreover, organizations that try to bounce back may be "reaping the learning and adaptation opportunities available" (D'Adderio, 2014: 1325) and ignoring opportunities to innovate and take advantage of the new circumstances.

Instead, overcoming crises could be seen as an evolutionary process (Davoudi et al., 2013: 315), an opportunity to break onto a new, even more advantageous trajectory. Therefore, the integral, capability-based notion of organizational resilience presented in this section may be suitable to extend our theoretical understanding. This notion emphasizes the importance of specific practices that organizations need to enact at different phases before, during, and after crises. Only this holistic view, which does not prioritize any of these phases and their associated practices, may enable organizations to manage crises successfully.

Conclusion and Directions for Future Research

The purpose of this article was to sharpen our theoretical perception of the concept of organizational resilience. Thoroughly reviewing the existing literature revealed two approaches – the Plan to Resist Approach and the Containing Crisis Approach. The two approaches differ

in the basic assumptions underlying their mindset towards threat, their definitions of adversity and resilience, and the specific phases of crises they focus on. Accordingly, each school of thought proposes different measures to enhance organizational resilience.

Both approaches have their merits in dealing with particular problems that organizations encounter during different phases of crises. Nevertheless, neither of the two approaches can stand alone when trying to explain an organization's failure or success in ensuring resilience. Therefore, the integral, capability-based concept of organizational resilience developed in this article bridges the gap between the two approaches: Its processual notion emphasizes that it is equally important to be capable of preparing for and responding to breakdowns while also being able to switch smoothly between the relevant practices. Beyond that, this approach highlights the importance of the recovery phase as a distinct phase of crises. Thus, this recovery phase requires particular capabilities that should be regarded as equally important as preparation and response capabilities. Because of this processual view concerning the phases of crises, an integral understanding of organizational resilience acknowledges that there is inherent uncertainty while crises are ongoing (Williams et al., 2017). That is why the definition of resilience is no longer limited to bouncing back but rather opens up a wide range of opportunities to achieve a new normal.

Based on this integral, capability-based concept, new and potentially fruitful avenues for further research – both, conceptual and empirical – may emerge, based on the different criteria depicted in Table I. 2.

Criterion	Plan to Resist	Containing Crisis	Integral, Capability-Based
Mind-Set towards Threat	Threat as calculable risk	Threat is inherent in a complex and uncertain world	Threat is inherent in a complex and uncertain world
Central Implications	Improve risk assessment to resist adversity	Establish organizational practices to detect and contain threats promptly	Balance risk assessment-, response-, and recovery-capabilities
Level of Analysis	Communities, cities, regions, systems	Individuals, teams & networks	Individuals, teams, organizations & networks
Phase of Crisis	Pre-crisis	Pre-crisis & Response	Pre-Crisis, Response & Recovery
Definition of Resilience	Resisting potential threats	Maintain core functions while facing adversity and recover quickly from disturbances	Achieving "new" normalcy after breakdown
Definition of Adversity	Sudden shocks (related to natural hazards, or terror attacks)	Unexpected deviations & constant exposure to dangerous environments	Breakdown of operations / no adequate structures & processes in place to address unexpected situation

Table I. 2: Comparison: Plan to Resist Approach, Containing Crisis Approach & Integral, Capability-Based Understanding

First organizations' recovery activities, which are not enacted to help organizations regain their capacity to operate, have not received much empirical attention so far (van der Vegt et al., 2015). Thus, these activities call for qualitative research (Bansal & Corley, 2011; Eisenhardt & Graebner, 2007; Gephart Jr., 2004). Because these crisis situations can be characterized by the destruction of preexisting structures and processes (Vogus & Sutcliffe, 2007), a special focus on organizational practices (Geiger, 2009; Gherardi, 2009; Whittington, 2011) is suitable when studying the process of returning to normalcy.

Second, the analytical scope of future research can vary from the individual level (Lengnick-Hall et al., 2011) to teams (Bechky & Okhuysen, 2011) to the organizational and even inter-organizational level (Nohrstedt, 2016). Yet many questions remain unanswered, such as what happens, especially at the individual and the team level, when there is a need to address

disruptive impacts and how they affect the organizational ability to address crises. Further, the issue of coordination seems to be central (van der Vegt et al., 2015). Especially with regard to transboundary crises (Boin & Lodge, 2016; Hermann & Dayton, 2009), we see the emergence of spontaneous response groups, which create new challenges for efficient coordination (T. E. Beck & Plowman, 2014; Majchrzak, Jarvenpaa, & Hollingshead, 2007; Williams & Shepherd, 2016). Not only do crises impact associated organizations due to those organizations' deep embeddedness in organizational networks but recovery also requires additional organizations to join these networks to bring in additional resources. These organizations may come from different sectors with dissonant institutional logics, ways of decision-making, or performance evaluation criteria (De Bruijne & Van Eeten, 2007: 19). Consequently, we see a special form of temporary organizations (Bakker, DeFillippi, Schwab, & Sydow, 2016) that need to build coordination patterns essentially from scratch.

Third, phase models of disaster management have experienced a "bewildering array of variations" (Coetzee & Van Niekerk, 2012: 2) and received reasonable criticism (Cronstedt, 2002; Neal, 1997), mainly because in practice, setting up artificial, clear-cut boundaries that assign equal importance to all phases may be misleading (Cronstedt, 2002: 12). It is actually quite difficult to delineate and demarcate the different phases. Whereas the pre-crisis phase can be regarded as the period before operations are acutely threatened by an event, it is more difficult to determine the acute onset and potential ending of a crisis (McFarlane & Norris, 2006: 4). While an earthquake or a flood, for example, has a clear beginning, other situations such as refugee emergencies or the Ebola pandemic in western Africa are slow-onset events. These events may take much longer to have perceivable impact and to be recognized as crises. The same difficulty applies to determining the end of a crisis. In some cases, such as the breakdown of Fukushima, situations lead to a permanent state of adversity that requires a realignment of the whole system. Having a long-term perspective on recovery creates the

possibility for organizations to learn from the crisis they have overcome and prepare – to a certain extent – for upcoming adverse situations (Christianson, Farkas, Sutcliffe, & Weick, 2009; Desai, 2015; Starbuck, 2009). Conceptually, this means that the recovery phase, the post-crisis phase, and the pre-crisis phase blur into each other. Hence, further research needs to explore ways to identify and separate the different phases, how these phases are interlinked, and what happens at the transition between the different phases. The integral, capability-based concept developed in this study can serve as a foundation for further exploration of these questions.

Beyond those conceptual considerations, studying organizational resilience, especially during the recovery phase, does entail some practical challenges. Studying organizational practices requires deep embeddedness in the field and the use of ethnographic observations (Feldman & Orlikowski, 2011; Van Maanen, 2011). During times of crisis, this may be difficult for three reasons. The first is timing: Crises happen, by definition, rather unexpectedly and rapidly. Hence, it is difficult to elaborate well-structured plans for data collection beforehand.

Second ,– and related to the problem of timing – an appropriate organization in which to conduct research can only be identified once a crisis has already appeared, and thus, the process of making contact and being granted access needs to be timely (Cunliffe & Alcadipani, 2016). However, organizations under stress are unlikely to have the resources to address these inquiries, which will require additional attention concerning the organization of field visits.

Third, doing research in extreme contexts carries risks (Hällgren, Rouleau, & de Rond, 2018). Situations may be dangerous for the researchers themselves, especially in conflict situations or the aftermath of weather catastrophes.

Conceptually, drawing lessons from one crisis may not automatically lead to a better handling of the next crisis (Vogus & Sutcliffe, 2007). Therefore, future research needs to look beyond the practical effects of certain tools and resources being applied in specific crises and develop theoretical generalizations about organizational resilience. Thereby, an integral, capability-based understanding provides structure to the ongoing debate on resilience. It is now feasible to grasp how the Plan to Resist Approach and the Containing Crisis Approach make individual contributions to the wider picture. This temporal conception provides a clear frame of reference that may help future studies to root their contributions within a comprehensive notion of resilience.

References

't Hart, P. (1993). Symbols, rituals and power: The lost dimensions of crisis management. *Journal of Contingencies and Crisis Management, 1*(1), 36-50.

Aigbogun, O., Ghazali, Z., & Razali, R. (2014). A framework to enhance supply chain resilience the case of malaysian pharmaceutical industry. *Global Business and Management Research: An International Journal, 6*(3), 219-225.

Albrito, P. (2012). Making cities resilient: Increasing resilience to disasters at the local level. *Journal of Business Continuity & Emergency Planning, 5*(4), 291-297.

Alchian, A. A. (1950). Uncertainty, evolution, and economic theory. *Journal of Political Economy, 58*(3), 211-221.

Aldrich, D. P., & Meyer, M. A. (2014). Social capital and community resilience. *American Behavioral Scientist, 59*(2), 254-269. https://doi.org/10.1177/0002764214550299

Alvesson, M., & Sandberg, J. (2011). Generating research questions through problematization. *Academy of Management Review, 36*(2), 247-271.

Anheier, H. K., & Moulton, L. (1999). Organizational Failures, Breakdowns, and Bankruptcies: An Introduction. In H. K. Anheier (Ed.), *When things go wrong: organizational failures and breakdowns* (pp. 3-16). Thousand Oaks, CA: Sage Publications.

Aoki, M., & Rothwell, G. (2013). A comparative institutional analysis of the Fukushima nuclear disaster: Lessons and policy implications. *Energy Policy, 53*, 240-247. https://dx.doi.org/10.1016/j.enpol.2012.10.058

Baker, T., Miner, A. S., & Eesley, D. T. (2003). Improvising firms: Bricolage, account giving and improvisational competencies in the founding process. *Research Policy, 32*(2), 255-276.

Bakker, R. M., DeFillippi, R., Schwab, A., & Sydow, J. (2016). Temporary organizing: Promises, processes, problems. *Organization Studies, 37*(12), 1703-1719.

Bansal, P. T., & Corley, K. (2011). From the editors: The coming of age for qualitative research: Embracing the diversity of qualitative methods. *Academy of Management Journal, 54*(2), 233-237.

Bechky, B. A., & Okhuysen, G. A. (2011). Expecting the unexpected? How SWAT officers and film crews handle surprises. *Academy of Management Journal, 54*(2), 239-261. https://doi.org/10.5465/AMJ.2011.60263060

Beck, T. E., & Plowman, D. A. (2014). Temporary, emergent interorganizational collaboration in unexpected circumstances: A study of the columbia space shuttle response effort. *Organization Science, 25*(4), 1234-1252. https://doi.org/10.1287/orsc.2013.0888

Beck, U. (1986). *Risikogesellschaft - Auf dem Weg in eine andere Moderne* (edition suhrkamp 1365 ed. Vol. Neue Folge Band 365). Frankfurt am Main: Suhrkamp Verlag.

Beck, U. (1992). *Risk society: Towards a new modernity* (M. Ritter, Trans.). London, Newbury Park, New Dehli: Sage Publications.

Beck, U., & Holzer, B. (2007). Organizations in world risk society. In C. M. Pearson, C. Roux-Dufort, & J. A. Clair (Eds.), *International Handbook of Organizational Crisis Management* (pp. 3-21). Thousand Oaks, California: Sage Publications, Inc.

Berthod, O., Grothe-Hammer, M., Müller-Seitz, G., Raab, J., & Sydow, J. (2017). From high-reliability organizations to high-reliability networks: The dynamics of network governance in the face of emergency. *Journal of Public Administration Research and Theory, 27*(2), 352-371. https://doi.org/10.1093/jopart/muw050

Berthod, O., Grothe-Hammer, M., & Sydow, J. (2015). Some characteristics of high-reliability networks. *Journal of Contingencies and Crisis Management, 23*(1), 24-28. https://doi.org/10.1111/1468-5973.12069

Berthod, O., Müller-Seitz, G., & Sydow, J. (2014). Interorganizational crisis management. In A. Thießen (Ed.), *Handbuch Krisenmanagement* (pp. 141-154). Wiesbaden: Springer Fachmedien.

Bigley, G. A., & Roberts, K. H. (2001). The incident command system: High-reliability organizing for complex and volatile task environments. *Academy of Management Journal, 44*(6), 1281-1299. https://doi.org/10.2307/3069401

Boin, A., Comfort, L. K., & Demchak, C. C. (2010). The rise of resilience. In A. Boin, L. K. Comfort, & C. C. Demchak (Eds.), *Designing resilience: Preparing for extreme events* (pp. 1-12). Pittsburgh: University of Pittsburgh Press.

Boin, A., & Lodge, M. (2016). Designing resilient institutions for transboundary crisis management: A time for public administration. *Public Administration, 94*(2), 289-298.

Boin, A., & McConnell, A. (2007). Preparing for critical infrastructure breakdowns: The limits of crisis management and the need for resilience. *Journal of Contingencies and Crisis Management, 15*(1), 50-59. https://doi.org/10.1111/j.1468-5973.2007.00504.x

Boin, A., & van Eeten, M. J. G. (2013). The resilient organization. *Public Management Review, 15*(3), 429-445. https://doi.org/10.1080/14719037.2013.769856

Bonß, W. (2015). Karriere und sozialwissenschaftliche Potenziale des Resilienzbegriffs. In M. Endreß & A. Maurer (Eds.), *Resilienz im Sozialen* (pp. 15-31). Wiesbaden: Springer Fachmedien.

Chen, J., Chen, T. H. Y., Vertinsky, I., Yumagulova, L., & Park, C. (2013). Public–private partnerships for the development of disaster resilient communities. *Journal of Contingencies and Crisis Management, 21*(3), 130-143. https://doi.org/10.1111/1468-5973.12021

Christianson, M. K., Farkas, M. T., Sutcliffe, K. M., & Weick, K. E. (2009). Learning through rare events: Significant interruptions at the Baltimore & Ohio Railroad Museum. *Organization Science, 20*(5), 846-860. https://doi.org/10.1287/orsc.1080.0389

Christmann, G. B., Ibert, O., Kilper, H., & Moss, T. (2012). *Vulnerability and resilience from a socio-spatial perspective: Towards a theoretical framework*. Working Paper. [Working Paper]. (No. 45). Erkner.

Coetzee, C., & Van Niekerk, D. (2012). Tracking the evolution of the disaster management cycle: A general system theory approach. *Jàmbá: Journal of Disaster Risk Studies, 4*(1), 1-9.

Cronstedt, M. (2002). Prevention, preparedness, response, recovery-an outdated concept? *Australian Journal of Emergency Management, 17*(2), 10-13.

Cunliffe, A. L., & Alcadipani, R. (2016). The politics of access in fieldwork. *Organizational Research Methods, 19*(4), 535-561. https://doi.org/10.1177/1094428116639134

D'Adderio, L. (2014). The replication dilemma unravelled: How organizations enact multiple goals in routine transfer. *Organization Science, 25*(4), 1325-1350. https://doi.org/10.1287/orsc.2014.0913

Danner-Schröder, A., & Geiger, D. (2016). Unravelling the motor of patterning work: Toward an understanding of the micro-level dynamics of standardization and flexibility. *Organization Science, 27*(3), 633-658.

Davoudi, S., Brooks, E., & Mehmood, A. (2013). Evolutionary resilience and strategies for climate adaptation. *Planning Practice and Research, 28*(3), 307-322. https://doi.org/10.1080/02697459.2013.787695

De Bruijne, M., & Van Eeten, M. (2007). Systems that should have failed: critical infrastructure protection in an institutionally fragmented environment. *Journal of Contingencies and Crisis Management, 15*(1), 18-29.

de Waard, E. J., Volberda, H. W., & Soeters, J. (2012). How to support sensing capabilities in highly volatile situations. *Journal of Management and Organization, 18*(6), 774-794.

Desai, V. (2015). Learning through the distribution of failures within an organization: Evidence from heart bypass surgery performance. *Academy of Management Journal, 58*(4), 1032-1050. https://doi.org/10.5465/amj.2013.0949

Doerfel, M. L., & Prezelj, I. (2017). Resilience in a complex and unpredictable world. *Journal of Contingencies and Crisis Management, 25*(3), 118-122.

Edgeman, R., & Williams, J. A. (2014). Enterprise self-assessment analytics for sustainability, resilience and robustness. *The TQM Journal, 26*(4), 368-381.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal, 50*(1), 25-32.

Faraj, S., & Xiao, Y. (2006). Coordination in fast-response organizations. *Management Science, 52*(8), 1155-1169. https://doi.org/10.1287/mnsc.1060.0526

Feldman, M. S., & Orlikowski, W. J. (2011). Theorizing practice and practicing theory. *Organization Science, 22*(5), 1240-1253. https://doi.org/10.1287/orsc.1100.0612

Frederickson, H. G., & LaPorte, T. R. (2002). Airport security, high reliability, and the problem of rationality. *Public Administration Review, 62*, 33-43.

Geiger, D. (2009). Revisiting the concept of practice: Toward an argumentative understanding of practicing. *Management Learning, 40*(2), 129-144. https://doi.org/10.1177/1350507608101228

Gephart Jr., R. P. (2004). Qualitative research and the Academy of Management Journal. *Academy of Management Journal, 47*(4), 454-462.

Gephart Jr., R. P., Van Maanen, J., & Oberlechner, T. (2009). Organizations and risk in late modernity. *Organization Studies, 30*(2-3), 141-155. https://doi.org/10.1177/0170840608101474

Gherardi, S. (2009). Introduction: The critical power of the `practice lens'. *Management Learning, 40*(2), 115-128. https://doi.org/10.1177/1350507608101225

Gunderson, L. H. (2000). Ecological resilience - in theory and application. *Annual Review of Ecology and Systematics, 31*(1), 425-439. https://doi.org/10.1146/annurev.ecolsys.31.1.425

Hällgren, M., Rouleau, L., & de Rond, M. (2018). A matter of life or death: How extreme context research matters for management and organization studies. *Academy of Management Annals, 12*(1), 111-153. https://doi.org/10.5465/annals.2016.0017

Hawkins, R. L., & Maurer, K. (2010). Bonding, bridging and linking: How social capital operated in New Orleans following Hurricane Katrina. *British Journal of Social Work, 40*(6), 1777-1793.

Hermann, M. G., & Dayton, B. W. (2009). Transboundary crises through the eyes of policymakers: Sense making and crisis management. *Journal of Contingencies and Crisis Management, 17*(4), 233-241.

Holling, C. S. (1973). Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics, 4*, 1-23. https://doi.org/10.2307/2096802

Houston, J. B., Spialek, M. L., Cox, J., Greenwood, M. M., & First, J. (2014). The centrality of communication and media in fostering community resilience: A framework for assessment and intervention. *American Behavioral Scientist, 59*(2), 270-283. https://doi.org/10.1177/0002764214548563

Hutter, G., & Kuhlicke, C. (2013). Resilience, talk and action: exploring the meanings of resilience in the context of planning and institutions. *Planning Practice and Research, 28*(3), 294-306. https://doi.org/10.1080/02697459.2013.787706

Jaaron, A. A. M., & Backhouse, C. J. (2014). Service organisations resilience through the application of the vanguard method of systems thinking: A case study approach. *International Journal of Production Research, 52*(7), 2026-2041.

Kahneman, D., & Tversky, A. (1982). Variants of uncertainty. *Cognition, 11*(2), 143-157.

Kaniasty, K., & Norris, F. H. (1995). In search of altruistic community: Patterns of social support mobilization following Hurricane Hugo. *American Journal of Community Psychology, 23*(4), 447-477.

Kaufmann, M. (2013). Emergent self-organisation in emergencies: resilience rationales in interconnected societies. *Resilience, 1*(1), 53-68. https://doi.org/10.1080/21693293.2013.765742

Kendra, J. M., & Wachtendorf, T. (2003). Elements of resilience after the world trade center disaster: reconstituting New York City's emergency operations centre. *Disasters, 27*(1), 37-53.

Khan, H., Vasilescu, L. G., & Khan, A. (2008). Disaster management cycle-a theoretical approach. *Journal of Management and Marketing, 6*(1), 43-50.

Klohnen, E. C. (1996). Conceptual analysis and measurement of the construct of ego-resiliency. *Journal of Personality and Social Psychology, 70*(5), 1067-1079.

La Porte, T. R. (1996). High reliability organizations: Unlikely, demanding and at risk. *Journal of Contingencies and Crisis Management, 4*(2), 60-71.

La Porte, T. R., & Consolini, P. M. (1991). Working in practice but not in theory: Theoretical challenges of "high-reliability organizations". *Journal of Public Administration Research and Theory: J-PART, 1*(1), 19-48. https://doi.org/10.2307/1181764

La Porte, T. R., & Thomas, C. W. (1995). Regulatory compliance and the ethos of quality enhancement: Surprises in nuclear power plant operations. *Journal of Public Administration Research and Theory: J-PART, 5*(1), 109-137.

LaPorte, T. R., & Consolini, P. M. (1998). Theoretical and operational challenges of “High-Reliability Organizations”: Air-traffic control and aircraft carriers. *International Journal of Public Administration, 21*(6-8), 847-852.

Lee, A. V., Vargo, J., & Seville, E. (2013). Developing a tool to measure and compare organizations’ resilience. *Natural Hazards Review, 14*(1), 29-41.

Lengnick-Hall, C. A., Beck, T. E., & Lengnick-Hall, M. L. (2011). Developing a capacity for organizational resilience through strategic human resource management. *Human Resource Management Review, 21*(3), 243-255.

Leveson, N., Dulac, N., Marais, K., & Carroll, J. (2009). Moving beyond normal accidents and high reliability organizations: A systems approach to safety in complex systems. *Organization Studies, 30*(2-3), 227-249. https://doi.org/10.1177/0170840608101478

Longstaff, P. H. (2005). *Security, resilience, and communication in unpredictable environments such as terrorism, natural disasters, and complex technology.* Cambridge, USA.

Luhmann, N. (1990). Technology, environment and social risk: a systems perspective. *Organization & Environment, 4*(3), 223-231.

Luhmann, N. (1995). *Social systems*. Stanford: Stanford University Press.

Luhmann, N. (2005). Komplexität. In N. Luhmann (Ed.), *Soziologische Aufklärung 2: Aufsätze zur Theorie der Gesellschaft* (5 ed., pp. 255-276). Wiesbaden: VS Verlag für Sozialwissenschaften.

Majchrzak, A., Jarvenpaa, S. L., & Hollingshead, A. B. (2007). Coordinating expertise among emergent groups responding to disasters. *Organization Science, 18*(1), 147-161. https://doi.org/10.1287/orsc.1060.0228

Mallak, L. (1998). Measuring resilience in health care provider organizations. *Health Manpower Management, 24*(4), 148-152.

Mamouni-Limnios, E. A., & Mazzarol, T. (2011). *Resilient organisations: Offense versus defense.* Paper presented at the 25th Annual ANZAM Conference.

Masten, A. S., & Obradović, J. (2007). Competence and resilience in development. *Annals of the New York Academy of Sciences, 1094*(1), 13-27.

McFarlane, A. C., & Norris, F. H. (2006). Definitions and concepts in disaster research. In F. H. Norris, S. Galea, M. J. Friedman, & P. J. Watson (Eds.), *Methods for disaster mental health research* (pp. 3-19). New York: The Guilford Press.

McManus, S., Seville, E., Vargo, J., & Brunsdon, D. (2008). Facilitated process for improving organizational resilience. *Natural Hazards Review, 9*(2), 81-90.

Müller-Seitz, G. (2014). Von Risiko zu Resilienz — Zum Umgang mit Unerwartetem aus Organisationsperspektive. *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung, 66*(68), 102-122. https://doi.org/10.1007/bf03373728

Neal, D. M. (1997). Reconsidering the phases of disasters. *International Journal of Mass Emergencies and Disasters, 15*(2), 239-264.

NGA. (1979). *1978 Emergency Preparedness Project Final Report*. Washington D.C.: United States Government Printing Office Retrieved from Permanent link: https://hdl.handle.net/2027/umn.31951d00678253a?urlappend=%3Bseq=14.

Nohrstedt, D. (2016). Explaining mobilization and performance of collaborations in routine emergency management. *Administration & Society, 48*(2), 135-162. https://doi.org/10.1177/0095399712473983

Normandin, J.-M., & Therrien, M.-C. (2016). Resilience factors reconciled with complexity: The dynamics of order and disorder. *Journal of Contingencies and Crisis Management, 24*(2), 107-118. https://doi.org/10.1111/1468-5973.12107

Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology, 41*(1-2), 127-150.

Patriotta, G., & Gruber, D. A. (2015). Newsmaking and sensemaking: Navigating temporal transitions between planned and unexpected events. *Organization Science, 26*(6), 1574-1592. https://doi.org/10.1287/orsc.2015.1005

Perrow, C. (1999). *Normal accidents: Living with high-risk technologies - updated edition*. Princeton, N.J.: Princeton University Press.

Pescaroli, G., & Kelman, I. (2017). How critical infrastructure orients international relief in cascading disasters. *Journal of Contingencies and Crisis Management, 25*(2), 56-67. https://doi.org/10.1111/1468-5973.12118

Richardson, B. K. (2005). The phases of disaster as a relationship between structure and meaning: A narrative analysis of the 1947 Texas City explosion. *International Journal of Mass Emergencies and Disasters, 23*(3).

Rijpma, J. A. (2003). From deadlock to dead end: The normal accidents-high reliability debate revisited. *Journal of Contingencies and Crisis Managament, 11*(1), 37-45.

Rochlin, G. I., La Porte, T. R., & Roberts, K. H. (1998). The self-designing high-reliability organization: Aircraft carrier flight operations at sea. *Naval War College Review, 51*(3), 97-113.

Rosenthal, U., Boin, R., & Comfort, L. (2001). The changing world of crisis and crisis management. In U. Rosenthal, R. Boin, & L. Comfort (Eds.), *Managing crises: Threats, dilemmas, opportunities* (pp. 5-27). Springfield, IL: Charles C. Thomas.

Rosenthal, U., Charles, M. T., & 't Hart, P. (1989). *Coping with crises: The management of disasters, riots, and terrorism*. Springfield: Charles C Thomas Pub Ltd.

Rumsfeld, D. (2002). *Press Conference by US Secretary of Defense*. NATO Headquartes - Brussels, Belgium.

Schakel, J.-K., Fenema, P. C. v., & Faraj, S. (2016). Shots fired! Switching between practices in police work. *Organization Science, 27*(2), 391-410. https://doi.org/10.1287/orsc.2016.1048

Schreyögg, G. (1991). Der Managementprozess–neu gesehen. *Managementforschung, 1*(1991), 255-289.

Schulman, P. R. (1993). The negotiated order of organizational reliability. *Administration & Society, 25*(3), 353-372.

Slovic, P. (1987). Perception of risk. *Science, 236*(4799), 280-285.

Slovic, P., Finucane, M. L., Peters, E., & MacGregor, D. G. (2004). Risk as analysis and risk as feelings: Some thoughts about affect, reason, risk, and rationality. *Risk Analysis, 24*(2), 311-322.

Somers, S. (2009). Measuring resilience potential: An adaptive strategy for organizational crisis planning. *Journal of Contingencies and Crisis Management, 17*(1), 12-23.

Starbuck, W. H. (2009). Cognitive reactions to rare events: Perceptions, uncertainty, and learning. *Organization Science, 20*(5), 925-937.

Sutcliffe, K. M., & Vogus, T. J. (2003). Organizing for resilience. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive Organizational Scholarship: Foundations of a New Discipline* (pp. 94-110). San Francisco: Berrett-Koehler Publishers, Inc.

Sydow, J., Müller-Seitz, G., & Provan, K. G. (2013). Managing uncertainty in alliances and networks – From governance to practice. In T. K. Das (Ed.), *Managing knowledge in strategic alliances* (pp. 1-43). Charlotte, NC: Information Age Publishing.

Taleb, N. N. (2007). *The black swan: The impact of the highly improbable* (Vol. 2): Random House.

Tierney, K. (2014). *The social roots of risk: Producing disasters, promoting resilience*. Stanford: Stanford University Press.

Tsoukas, H., & Chia, R. (2002). On organizational becoming: Rethinking organizational change. *Organization Science, 13*(5), 567-582.

UNISDR. (2015). *Making Development Sustainable: The Future of Disaster Risk Management. Global assessment report on disaster risk reduction 2015—Making development sustainable:The future of disaster risk management.* Retrieved from Geneva: http://www.preventionweb.net/english/hyogo/gar/2015/en/gar-pdf/GAR2015_EN.pdf.

Van de Walle, S. (2014). Building resilience in public organizations: The role of waste and bricolage. *Innovation Journal, 19*(2), 2-18.

van der Vegt, G. S., Essens, P., Wahlström, M., & George, G. (2015). Managing risk and resilience. *Academy of Management Journal, 58*, 971-980. https://doi.org/10.5465/amj.2015.4004

Van Maanen, J. (2011). Ethnography as work: Some rules of engagement. *Journal of Management Studies, 48*(1), 218-234.

Vogus, T. J., & Sutcliffe, K. M. (2007). *Organizational resilience: Towards a theory and research agenda.* Paper presented at the Systems, Man and Cybernetics, 2007. ISIC. IEEE International Conference.

Weick, K. E. (1988). Enacted sensemaking in crisis situations. *Journal of Management Studies, 25*(4), 305-317.

Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly, 38*(4), 628-652. https://doi.org/10.2307/2393339

Weick, K. E. (2011). Organizing for transient reliability: The production of dynamic non-events. *Journal of Contingencies and Crisis Management, 19*(1), 21-27. https://doi.org/10.1111/j.1468-5973.2010.00627.x

Weick, K. E., & Roberts, K. H. (1993). Collective mind in organizations: Heedful interrelating on flight decks. *Administrative Science Quarterly, 38*(3), 357-381. https://doi.org/10.2307/2393372

Weick, K. E., & Sutcliffe, K. M. (2006). Mindfulness and the quality of organizational attention. *Organization Science, 17*(4), 514-524. https://doi.org/10.1287/orsc.1060.0196

Weick, K. E., & Sutcliffe, K. M. (2007). *Managing the unexpected : Resilient performance in an age of uncertainty* (2nd edition ed.). San Francisco: Jossey-Bass.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (1999). Organizing for high reliability: Processes of collective mindfulness. *Research in Organizational Behavior, 21*, 81-123.

Whittington, R. (2011). The practice turn in organization research: Towards a disciplined transdisciplinarity. *Accounting, Organizations and Society, 36*(3), 183-186.

Wildavsky, A. B. (1988). *Searching for safety* (3rd edition ed. Vol. 10). New Brunswick, London: Transaction Publishers.

Williams, T. A., Gruber, D. A., Sutcliffe, K. M., Shepherd, D. A., & Zhao, E. Y. (2017). Organizational response to adversity: Fusing crisis management and resilience research streams. *Academy of Management Annals, 11*(2), 733-769. https://doi.org/10.5465/annals.2015.0134

Williams, T. A., & Shepherd, D. A. (2016). Building resilience or providing sustenance: Different paths of emergent ventures in the aftermath of the Haiti earthquake. *Academy of Management Journal, 59*(6), 2069-2102.

Essay II

Coordination Saves Lives: Towards a Dynamic Understanding of Enacting Coordinative Autonomy in Turbulent Settings

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Abstract

Achieving integration in the face of discontinuity is seen as a major concern for coordination. Our qualitative field study of Uganda Red Cross Society and its operations in coordinating humanitarian relief efforts in Ugandan refugee settlements shows that practitioners are orienting towards absence in the process of coordinating in an effort to remain operational. Enacting disruptions of coordination and restoring integration enables them to deal with rapidly changing situations. Building on this study, we develop a processual understanding of coordination in turbulent settings that points to the flexible construction of tasks in the process of coordinating. We thereby contribute to the theory of coordination in turbulent settings in at least two ways: First, we develop the concept of enacting '*coordinative autonomy'* to better understand how coordination is achieved in adverse situations. Second, we argue for a dynamic understanding of tasks in the process of coordinating.

Introduction

> "You know, it is like fire-fighting, you cannot let time pass, you need to constantly build new structures and you need to be aware that they will only last up to two hours, sometimes up to six. And when they break, you may not be angry with your people, because it's just a matter of fact." – Andrew, Reception Center Manager (URCS) at Refugee Settlement Imvepi, Uganda

High-thread events such as extreme weather catastrophes or industrial accidents pose major challenges on organizations (UNISDR, 2015). Responding to those disasters requires a timely coordination of efforts and is therefore a key concern for the organizations involved (Majchrzak, Jarvenpaa, & Hollingshead, 2007: 150; van der Vegt, Essens, Wahlström, & George, 2015: 975). Particularly in extreme contexts, coordination is a major challenge since ambiguity, discontinuity and unexpected events are common and impair the integration and synchronization of activities (Hällgren, Rouleau, & de Rond, 2018; Wolbers, Boersma, & Groenewegen, 2018). Latest empirical studies focused on the ability of high-reliability and fast-response organizations to withstand turbulent settings and to ensure the coordination of activities even in the face of disruptions (Bechky & Okhuysen, 2011; Bigley & Roberts, 2001; Danner-Schröder & Geiger, 2016; Faraj & Xiao, 2006). These studies highlight the need to complement well-rehearsed coordination practices with more improvisational practices enabling organizations to address potentially overwhelming situations (Suarez & Montes, 2019). Here, the dominant interest lies on the emergent process of coordinating from a social practice perspective (Gkeredakis, 2014; Jarzabkowski, Le, & Feldman, 2012), what tends to be in line with the current mainstream perspective in organization studies (Okhuysen & Bechky, 2009).

In this paper, we argue that this development has led to an overemphasis of the actual activities that actors perform in an effort to achieve coordination, while neglecting the relationship between coordination activities and the actual tasks that need to be coordinated. Though, in turbulent settings discontinuity and ambiguity not only affect the process of coordinating (Wolbers et al., 2018) but also the understanding of tasks (Faraj & Xiao, 2006: 1156). Therefore, developing and contributing to a processual understanding of coordination (Jarzabkowski et al., 2012) requires studying how coordinating practices shape the understanding of tasks, thereby moving beyond a static understanding of tasks towards acknowledging the mutual interdependencies between coordination activities and the construction of tasks (Farjoun, 2010).

We aim to contribute to the understanding of the relationship between coordinating and the continuous construction of tasks in the face of ongoing disruptions in highly dynamic situations. Although many studies share an interest in understanding the process of coordination and explore emergent coordination, the task or the collective performance that results from coordinating is largely being taken for granted. Despite the processual understanding that guides latest studies on coordination, most of them at least implicitly see coordination as a means that serves to accomplish a particular, ex-ante defined and rather static task. Moreover, the focus on integrating conditions that are disrupted by external events paints a rather re-active picture of coordination in adverse settings. Whilst organizations are understood as expecting the Unexpected (Bechky & Okhuysen, 2011), they are still conceptualized as adopters that need to simply cope with adversity. Our study is thus, designed to better understand how coordination is enacted in turbulent, highly dynamic environments, where a flexible approach to tasks (Baker, Feldman, & Lowerson, 2013) and the capability to deal with a large number of complex situational cues without getting overwhelmed (Weick, 1993) are fundamental. To explore our research question how organizations coordinate towards tasks and avoid getting overwhelmed in turbulent settings, we theoretically sampled the Uganda Red Cross Society's emergency response operations in Ugandan refugee settlements during the South Sudanese Refugee Crisis in 2016 and 2017. Our qualitative field study is based on extensive non-participant observation and interview data. Our analysis suggests that emergency managers have a very flexible approach towards the task of coordination, which is not a means to an end but is constructed in the process of coordination. Enacting coordination practices enabled practitioners to firstly orient towards missing integrating conditions, enact disruptions and thereby either stabilize or modify the task in the process of coordinating. Hereby, our findings reveal that whenever the predictability of operations was at stake managers enacted coordination practices such as process restoring or dynamic resourcing to stabilize the task, whereas they modified the task by enacting gap spotting, adaptive

decelerating, or processual bandwagoning whenever their accountability for a certain task was questioned. With these insights, we contribute to coordination literature by introducing the concept of *coordinative autonomy* and strengthen our understanding of coordinating as process by taking the duality of coordination and tasks into account.

From a Static Towards a Dynamic Understanding of Tasks in Coordinating

Coordination is commonly understood as a "temporally unfolding and contextualized process of input regulation and interaction articulation to realize a collective performance" (Faraj & Xiao, 2006). Although there are multiple definitions of coordination, most perspectives share evident commonalities: "(1) people work collectively; (2) the work is interdependent; and (3) a goal, task, or piece of work is achieved" (Okhuysen & Bechky, 2009: 469). Recent studies have shifted the focus from understanding why coordination mechanisms work towards explaining how coordination happens (Wolbers et al., 2018: 1522). Such a practice-based understanding of coordination as process shifted our focus towards the emergence of different, interdependent coordination trajectories and the way they are synchronized in performance. Coordination mechanisms are no longer perceived as static, pre-designed entities but as being constantly enacted and shaped through dynamic social practices (Jarzabkowski et al., 2012: 909), which acknowledge the importance of context and situatedness (Okhuysen & Bechky, 2009: 493).

This synchronization requires, as Okhuysen and Bechky (2009: 481) outlined, at least three integrating conditions: accountability, predictability, and a common understanding of tasks. Accountability is required for coordination, since it clarifies the question who is responsible for carrying out specific elements of the task. Accountability may be planned and follow organizational design and formal hierarchy but may also emerge, change and be created through informal understanding (Okhuysen & Bechky, 2009: 483). Predictability enables interdependent ac-

tors to anticipate subsequent task related activities, i.e. an understanding of the collective workflow (Okhuysen & Bechky, 2009: 486): It involves having a sense of which subtasks make up larger tasks and the sequence in which these subtasks need to be performed. Predictability can be designed either through schedules or work plans, or it can emerge in the process of coordination through role switching (Bechky, 2006), re-ordering work (Bechky & Okhuysen, 2011), or mindful anticipation (Weick & Roberts, 1993). Common understanding or shared task knowledge (Bechky & Okhuysen, 2011: 246) facilitates coordination by providing a shared perspective on the whole task and how individual actors fit into this whole (Okhuysen & Bechky, 2009: 488). Like accountability and predictability, shared task knowledge can be created through formal mechanisms such as representations (Kellog, Orlikowski, & Yates, 2006), or it can emerge through interactions within organizations.

Since these three integrating conditions are vital for effective coordination, latest studies on coordination focused on how coordination is performed in practice (Gkeredakis, 2014; Harrison & Rouse, 2014; Jarzabkowski et al., 2012). Apparently, studies on high-reliability and fast response organizations such as hospitals, SWAT teams, or firefighters seem particularly suitable to interrogate how organizations are able to establish those three integrating conditions (Bechky & Okhuysen, 2011; Danner-Schröder & Geiger, 2016; Faraj & Xiao, 2006; Weick, Sutcliffe, & Obstfeld, 1999). These studies focus on coordination as an emerging concept in fast-paced environments that are characterized by high degrees of discontinuity and ambiguity. Especially in turbulent settings, traditionalist means of coordination may be “to slow, disconnected and inadequate for the task” (Majchrzak et al., 2007: 147). Thus, those integrating conditions might easily be disrupted and organizations need to constantly re-establish these conditions despite breakdowns and interruptions (Jarzabkowski et al., 2012). Organizations deal with those challenging circumstances by developing socio-cognitive resources for bricolage (Bechky & Okhuysen, 2011), which enables them to respond to surprises through a collectively held

knowledge how a task should be performed. Actors rely on protocols, they may engage in plug-and-play teaming (Faraj & Xiao, 2006), they may quickly re-assemble routines (Bechky & Okhuysen, 2011; Danner-Schröder & Geiger, 2016), reorder their workflows, or shift roles (Bechky, 2006; Bechky & Okhuysen, 2011) to integrate diverging work trajectories. As these studies show, in extreme contexts, actors engage in attempts to reconcile their differences in action and to restore the integrating conditions that have been compromised. Wolbers et al. (2018) however, have shown that particularly in inter-organizational settings of crisis management, the integration and harmonization of diverging perspectives is often not an option but that organizations rather tend to fragment different tasks and coordinate activities relatively independently. Here, fragmentation of different tasks is a strategy of coping with ambiguity and discontinuity instead of integrating diverging interpretations (Wolbers et al., 2018: 1536).

Despite these differences (integration versus fragmentation), current studies focus exclusively on the process of coordinating, i.e. how coordination is achieved in adverse conditions. Yet interestingly, the task or the collective performance as the goal of coordination has largely been absent in the debate. In their study of how SWAT teams respond to unexpected events for example, Bechky and Okhuysen (2011) focus on the ability of the team members for bricolage in the process of coordination, while the task – arresting the felon who has entrenched himself inside the apartment – remains static over time. Similarly, in the study of a trauma-center by Faraj and Xiao (2006) the overarching aim of coordination – the recovery of the patient – stays undisputed. Their interest is in how the medical team copes with diverging trajectories to accomplish this task. Even in the fragmentation perspective, whilst there is no overarching understanding of the task between organizations, each organization still knows what it is supposed to do and what the task actually is. Seen this way, the task that actors are coordinating towards is not further problematized in current coordination studies and it is treated rather static.

This one-sided focus on mechanisms of coordinating is particularly remarkable since coordinating in crises situations sometimes requires "doing different tasks and doing tasks differently" (Baker et al., 2013: 222). However, the majority of studies on coordination focus on 'doing tasks differently' but neglect that during the course of events tasks may shift (Quarantelli, 1988: 379) or that tasks are deliberately changed to address novel needs.

This lack of problematizing the task in the process of coordinating reflects the implicit assumption in coordination theory that the task can be separated from behavior (Hærem, Pentland, & Miller, 2015). Not problematizing the task of coordination implies that it is possible to separate the task itself from the people, context, and behavior used to perform the task (Hærem et al., 2015: 449). Even in crises situations, it is assumed that the process to achieve the task varies but the task as a whole remains static and unchanged. However, adopting a practice perspective on coordination also implies that ostensive and performed tasks are a duality, i.e. there is no task unless someone is actually doing it (Hærem et al., 2015). Practice theories actually point out that task and process (or structure and agency) are not dualisms that can be separated in practice but instead are a duality; one cannot exist without the other (Farjoun, 2010; Feldman & Orlikowski, 2011). As Jarzabkowski et al. (2012: 920) argue, coordination mechanisms are not used for coordination but instead are enacted in a process of coordinating. This does not only apply for the integrating conditions but for the task of coordination as well. If in crises situations action ambiguity and discontinuity are an inescapable reality rather than complications that can be resolved (Wolbers et al., 2018: 1525), it is likely to assume that also tasks might change and organizations are required to enact different tasks than originally projected. In addition, when a situation is ambiguous and rapidly changing, it presents a potentially overwhelming number of complex cues that need to be taken into account in the process of coordination (Weick, 1993). It is therefore impossible to respond to all potential cues at the same time but practitioners need to first make sense and select relevant cues (Cornelissen, Mantere, &

Vaara, 2014; Schreyögg, 1980) before being able to coordinate in a meaningful way. Acting in a complex and shifting environment, it is thus difficult to know beforehand which tasks need to be coordinated and how. Hence, such a perspective requires a dynamic instead of a static understanding of tasks; tasks are enacted rather than something that is coordinated towards. Our research question thus, sets out to explore how organizations coordinate towards task and avoid getting overwhelmed in turbulent settings, where maintaining integrating conditions is a key concern.

Methods

According to our interest in generating theoretical insights how organizations coordinate towards tasks in turbulent settings, a qualitative research design is most appropriate (Eisenhardt & Graebner, 2007; Glaser, 2008; Strauss & Corbin, 1990). Our study unfolded over a nine-month period, during which we spent five weeks in the field, collecting ethnographic data (Van Maanen, 2011; Watson, 2011). We chose coordination practices as our unit of observation and analysis. To facilitate the understanding of the very specific context of humanitarian aid, Table II. 1 provides an overview of the most important abbreviations that will appear in the following passages.

Abbreviation	Explanation
ERU	Emergency Response Unit (Red Cross); small units with very specialized areas of expertise, funded by national Red Cross/Crescent societies, can be deployed within 24 hours in case of emergency and are able to sustain themselves independently for two months
IFRC	International Federation of Red Cross & Crescent Societies
MSM	Mass Sanitation Module; specialized ERU to provide latrines and bathing shelters to up to 20,000 beneficiaries
NFIs	Non-Food Items: e.g. jerrycans, blankets, soap, cooking utensils; basic equipment that is usually provided to all refugees upon arrival
OPM	Office of the (Ugandan) Prime Minister; leading state authority, responsible for the country-wide management of the refugee situation
SPHERE	Framework providing internationally accepted minimum standards for humanitarian aid
UNHCR	United Nations High Commissioner for Refugees; leading UN refugee agency, responsible for coordination and ensuring refugee and asylum laws are being applied
URCS	Uganda Red Cross Society
WASH	Water, Sanitation & Hygiene Promotion; include all activities related to the provision of drinking water and sanitation facilities; important to ensure survival and avoid spread of diseases
ZWF (Pseudonym)	Another aid agency providing sanitation facilities

Table II. 1: Commonly Used Abbreviations during Ugandan Refugee Situation

Research Setting

Following a theoretical sampling logic (Eisenhardt & Graebner, 2007), we chose an organization that can be regarded as prototypical (Siggelkow, 2007) for our subject of investigation, the Uganda Red Cross Society (URCS). URCS, as an auxiliary to the Ugandan government, was one of the leading actors operating in the South Sudanese refugee crisis, starting in 2017, who provided relief to more than one million refugees entering Northern Uganda (UNHCR, 2017a).

During its operations, URCS experienced high degrees of ambiguity and discontinuity due to continuously changing conditions, which are characteristic for refugee crises.

Providing relief to refugees creates huge coordination challenges for four reasons: (1) The influx of refugees is unpredictable in terms of numbers and migration routes. (2) Supplying refugees with essentials of life requires collaboration in complex networks of humanitarian aid organizations, public authorities, and private enterprises (Seybolt, 2009), and (3) most often has to be conducted in remote areas with scarce resources and poor infrastructures (de la Chaux, Haugh, & Greenwood, 2018). (4) Relief needs to be organized under time constraints because conditions are life-threatening and perils like malnutrition and diseases are mutually interlinked (Toole & Waldman, 1997).

The South Sudan refugee situation resulted from the South Sudanese civil war with ethnical cleansings and heavy armed conflicts spreading out from South Sudan's capital Juba in July 2016. As a consequence refugee movements affected all of its neighboring countries and were soon reported to be the fastest growing refugee crisis on the planet (UNHCR, 2017c) with an expected number of refugees of 2.15 million by the end of 2017. Hence, the number of refugees, arriving in Uganda, increased by 180 percent within six months from approximately 292,000 refugees by August 30th 2016 to 818,000 by February 28th 2017 (UNHCR, 2017d), leading to 1.03 million refugees in total, being hosted in Uganda, with 86% of them being women and children under 18 (UNHCR, 2017b). This massive influx created enormous challenges. Refugee settlements had to be built up from scratch in areas without any prior infrastructure, hosted up to 270,000 refugees and reached their maximum capacities within only a few months.

Altogether, Uganda's northern region is poor and remote with almost no paved roads reaching the affected areas. Thereby predictability of supplies is constantly at stake because road conditions are tearing vehicles and roads may become unpassable within hours due to changing weather conditions.

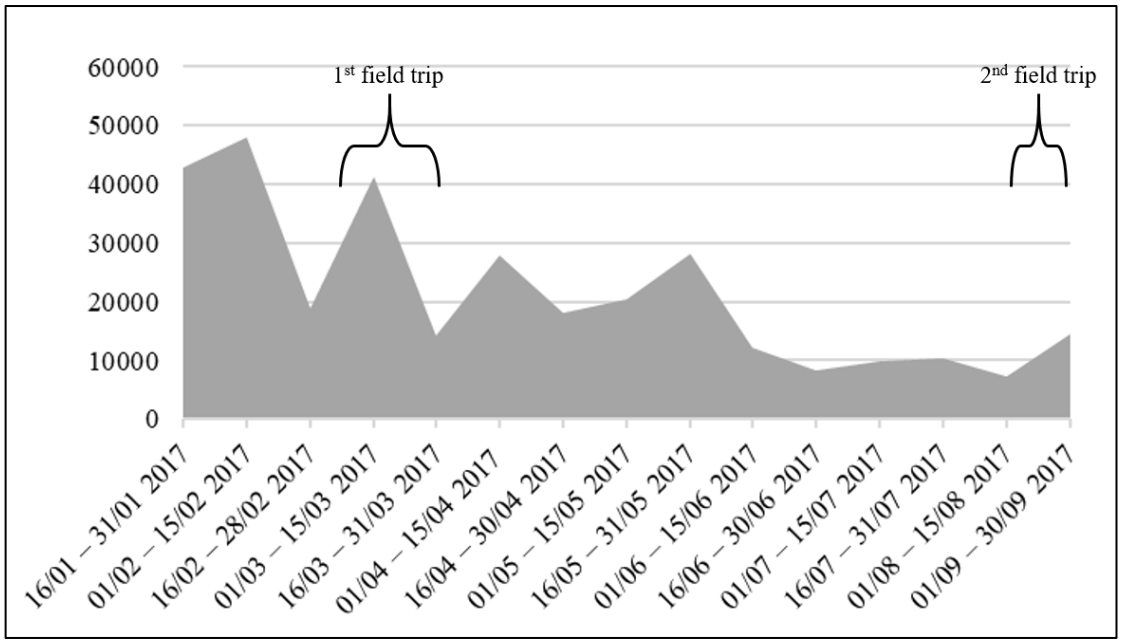

Figure II. 1: Bi-Weekly New Arrivals in Uganda 2017
Source: Own analysis of UNHCR field reports

In addition to the poor infrastructure, the refugee movement itself created continuous challenges. The number of refugees crossing the border was heavily fluctuating and thus, almost impossible to predict, as Figure II. 1 shows. To sum up, the situation confronted URCS with highly discontinuous and ambiguous conditions, with regularly occurring disruptions that required timely reaction and constant adaption of URCS' operations.

Data Collection

We accessed URCS via a personal contact of one of the authors. Our data set consists of three different types of data: ethnographic observations, interviews, and documents like field reports, international humanitarian aid frameworks, and press releases. Data collection started in January 2017 with a familiarization phase, reviewing documents about URCS activities as well as a more general familiarization with the Red Cross and Red Crescent movement, and the South Sudanese refugee situation. This was important to obtain interactional expertise (Collins, 2004; Langley, Smallman, Tsoukas, & Van de Ven, 2013) to facilitate communication with actors during our field observations (Van Maanen, 1988, 2011), which build the most insightful part

of our data collection. Our observations were split into two phases, as shown in Figure II. 1, a three-week field trip in March 2017 and 2) a two-week field trip in September 2017 conducted by both authors. During both field visits, we shadowed regional URCS emergency management staff. As it is typical for ethnographically inspired field studies, we spent the entire day together with staff members, observing their activities. We were accommodated together with URCS' team in a remote catholic mission in Yumbe district. A regular day started with a joint breakfast around 7:00 am. Around 8:00 am, we shared a vehicle with the team members and accompanied them throughout the day, shadowing them at all their activities, ranging from field assessment to staff and coordination meetings, and office work. Usually, a day ended between 10:00 and 12:00 pm. This approach allowed for a deep embedding in the field and a thorough understanding of staff member's perceptions of the situation because "it rigorously grounds and contextualizes the activities which the researcher observes and the accounts which [the researcher] receives from organizational members" (Watson, 2011: 202). During both our field visits, operations focused on a newly opened (21st of February 2017) refugee settlement, named Imvepi, which was facing many challenges because its fast growth. Table II. 2 provides a summary of the data we collected.

	Observations (h)	**Field Notes (p)**	**Interviews**	**Documents (p)**
1. Trip	405	351	46	
2. Trip	268	130	22	
Total	**673**	**481**	**68**	**2315**

Table II. 2: Summary of Collected Data

During our observations, we took extensive field notes in situ, except for situations where taking notes would have been regarded as inappropriate. Field notes were usually extended and completed as soon as possible (Dittrich, Guérard, & Seidl, 2016: 681; Emerson, Fretz, & Shaw, 2011). In addition, we conducted 68 interviews with 41 persons covering a wide range of URCS' employees across different hierarchical levels, as well as members from other agencies.

Interviews were conducted throughout the day, while driving to another location or during mealtime in the evenings. In addition, we had more than dozens of informal conversations each day that found their way into our field notes. Within these five weeks, we participated in 18 formal meetings, both internal staff and management meetings as well as inter-agency coordination and sector-specific meetings. Table II. 3 provides an overview of our interview data.

1. Trip			2. Trip		
Name[8]	**Position**	**Interviews**	**Name**	**Position**	**Interviews**
Abel	Program lead, WFP	1	Abraham	Volunteer, URCS	1
Ali	Emergency coordinator, UNHCR	1	Adrian	PSS officer, URCS	1
Andrew	Reception Center Manager, URCS	3			1
Bettina	Branch Manager, URCS	1	Benjamin	WASH coordinator, IFRC	4
Charlie	Regional office manager, World Vision	1	Bryan	NFI officer, URCS	1
Charlotte	Warehouse manager, URCS	1	Damian	NFI deputy officer, URCS	1
Christian	WASH engineer, URCS	1	Johanna	Hygiene promotion, URCS	2
Claire	Specialist support, MSM ERU	2	Jonas	PSS specialist, IsRC	1
George	Operations Manager, URCS	6			1
Hans	WASH coordinator, IFRC	2	Kilian	Team leader, URCS	1
Hartmut	Team leader, M40 ERU	1	Konstantin	WASH support, IFRC	1
Ismael	Volunteer, URCS	1	Liam	Financial manager, URCS	1
Jacob	Team Leader, URCS	1	Lisa	PSS specialist, IsRC	1
Jaqueline	Coordinator PR & Resource Mobilization, URCS	1	Marc	Driver, URCS	1
Jason	Driver, URCS	1	Matthew	NFI accountant, URCS	1

[8] For confidentiality names provided in this table are pseudonyms

Jeremy	On-field volunteer coordinator, URCS	1	Michael	Volunteer, URCS	1
Lucas	Volunteer, URCS	1	Rachel	HR coordinator, URCS	1
Lucius	Camp Commander, OPM	1	Thomas	M&E officer, URCS	1
Margret	Social Media Manager, URCS	1			
Matilde	Hygiene Promoter, MSM ERU	3			
Oliver	Relief project delegate, GRC	4			
Philipp	Volunteer, URCS	1			
Richard	Operations manager, IFRC	1			
Susan	Logistics officer, URCS	1			
William	Team Leader, MSM ERU	8			
Total		**46**			**22**

Table II. 3: List of Interview Partners

Data Analysis

Being guided by a grounded theory approach (Charmaz, 2006; Strauss & Corbin, 1990), data collection and data analysis were an alternating process. From day one of our first field trip, we discussed our observations on a daily basis in the evenings or during road trips to cope with the overwhelming impressions. After returning back home, we began to write very rich narrative accounts of each day, based on our field notes and interview transcripts, capturing our impressions and quotations from the conversations we had (Goodall Jr., 2008; Langley, 1999: 695).

As a next step, we started an open-coding process of our narrative descriptions (Strauss & Corbin, 1998: 101), with coordination practices as our unit of analysis. We were particularly interested in understanding how and which practices URCS managers enacted to cope with the coordination challenges at hand. With our 1st –order codes we stayed very close to our original data in order to keep the "informant-centric perspective" (Gioia, Corley, & Hamilton, 2012: 18). We then scanned for similarities and differences among those 1st –order codes to abstract

2nd –order themes that incorporated our "researcher-centric perspective" (Gioia et al., 2012: 18). This led to an emerging structure around *disruptions*, *orienting to absence*, and *coordinating practices* for our 2nd –order themes. During our second field trip, we presented our preliminary findings to URCS' management staff for validation. We used the opportunity to receive feedback and ensure that our interpretations were close to the actors' understanding of the situation (Yin, 2018). After returning from our second field trip, we repeated the process, incorporating new observations and had another feedback meeting with one of the ERU team leaders. Finally, we refined our coding scheme and went back into the literature on coordination to see whether our 2nd –order themes were either explaining not yet understood phenomena or contradicting common assumptions (Gioia et al., 2012). Returning to our data, we started for axial coding of our 2nd –order themes and clustered them into two aggregate dimensions: *task stabilizing* and *task modifying*.

Findings

Our study explores how organizations coordinate towards tasks and avoid getting overwhelmed in turbulent settings, where a focus on maintaining integrating conditions is a key concern. Therefore, we examined how URCS dealt with the coordination challenges during the South Sudanese Refugee Crisis. Our interpretive process, illustrated in Figure II. 2, revealed five different coordinating practices that were central to remain operational: *process restoring*, *dynamic resourcing*, *gap spotting*, *adaptive de-celerating*, and *processual bandwagoning*. In the following sections, we illustrate how these practices changed or stabilized the tasks URCS was performing whilst simultaneously enabling them to avoid getting overwhelmed and coordinate in an autonomous fashion.

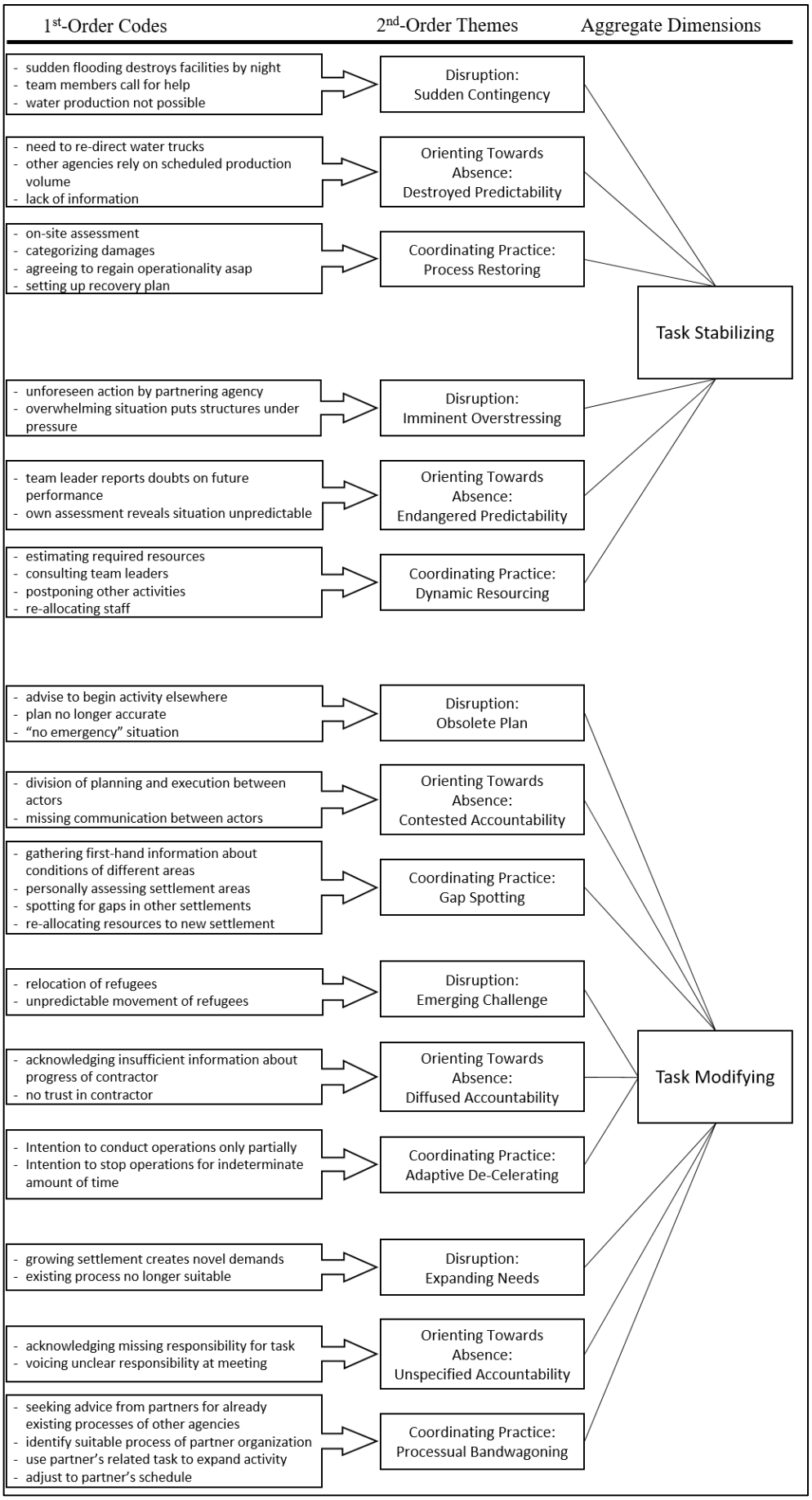

Figure II. 2: Data Structure

Task Stabilizing Practices

By task stabilizing, we refer to practices that we could observe in situations where URCS' operations were disrupted by sudden external contingencies such as floodings. Since URCS felt a continuous responsibility for the assigned tasks, following their own assessment, those external contingencies threatened the continuity of their operations, rendering the workflow unpredictable. URCS responded to those situations by enacting practices to restore the original task and ensure its continuous enactment: This, however, required novel coordination practices that altered previous approaches.

Process Restoring

One example of a task stabilizing practice is process restoring, which URCS managers enacted in the face of actual disruptions caused by sudden contingencies in the environment, which were beyond the control of URCS. As part of the process restoring practice, URCS managers assessed the situation on-site, categorized damages, and implemented a recovery plan. Because URCS was providing critical services to the refugees such as drinking water, disruptions were time-sensitive and could easily cascade into larger discontinuities due to related downstream services, e.g. water trucking. Through process restoring, URCS formulated and implemented a recovery plan, which allowed to quickly re-establish integration of coordination by returning to the execution of the original task. Vignette 1 exemplifies a situation in which we could observe process restoring.

Vignette 1 (Flooding of water purification facility Enyau)

Original Task:
In order to supply refuges with drinkable water, URCS operated the water purification facility Enyau. It was located directly at the eponymous river close to Imvepi settlement. It was operated by a team of around 12 URCS volunteers, who were responsible for extracting and purifying water at the facility. Moreover, they also lived on-site in a small tent-camp 24/7. The overarching task was to continuously provide drinkable water on a daily basis, which included

a number of interdependent sub-tasks such as maintenance of water pumps, preparing chemicals, conducting the filtering process, and fueling water trucks. The water production was tightly linked to the execution of related tasks, such as water trucking, which were conducted by partner organizations and therefore required additional coordination efforts.

Disruption:

On a Sunday morning, we joined the URCS team at the catholic mission for breakfast around 7:00 am. Benjamin, the WASH advisor was sipping his coffee and Maria, the IFRC operations manager was preparing some chapati for her lunch box. Suddenly, Konstantin, the WASH support officer, who assisted the four URCS water facilities, entered the dining hall. He looked really tired and exhausted. We asked him if there was something wrong and he replied: „Well, I got a call from Ismael (team leader at Enyau) around 4:30. Enyau got flooded. Everything is broken, they can't produce. He said the water stood up to their knees and now they are sitting there completely soaked. Their camp with all their belongings got flooded as well." All of us were shocked. Maria asked: "So how are they? Is anyone injured? What does the facility look like?" "I honestly don't know. Ismael said they are just wet and tired and asked for help. For now, they can't start with the water production but I don't know. We need to get there fast and see what's going on, so hurry up with your breakfast", Konstantin replied.

Orienting Towards Absence:

One could feel that the team was worried due to the lack of information about the volunteers' and facility's condition and to which extent this would impair the water production. The necessary chemicals for purifying water could have been washed away or have contaminated the terrain, water pumps and tanks could have been damaged, and volunteers injured. For now, the only thing they knew was that they could not start purifying water as planned. Later on, on our way to Enyau Konstantin explained in the car: "You see, water is a critical resource here. The whole systems is tightly synchronized. If we can't produce as scheduled, all the water trucks need to be redirected to other facilities, which means those facilities need to produce more, longer routes for the trucks, which means longer rides, which at the end of the day means less water for the camp. And at the moment, no one can tell how bad it is, so we need to fix this as fast as possible. Everyone relies on us."

Coordinating Practice:

The team at the dining hall briefly discussed what to do and decided that all of them should drive there to see what was going on. Maria said: "We should take everything with us that could be useful. We don't know what's going on right now." So everyone finished breakfast fast. Then, Maria started collecting some blankets, while Konstantin and Benjamin prepared tea and coffee, and grabbed some food. We also took our blankets from our rooms, not knowing whether they were actually needed. One could feel that the atmosphere became some kind of hectic because the situation was urgent. Everyone got into the vehicles as soon as possible. The ride took us about an hour. Heavy rains had impaired the red-brownish mud roads during the night and made it difficult to proceed fast. Upon arrival at Enyau, the volunteers sat on some spare wooden boxes that they had arranged on a small ridge. They were tired and looked depressed. The whole area was covered with ankle-deep grey mud. One of the big water tanks that capture 10,000 liters of water had been ripped of its embedment and was flushed ca. 25m away. The latrines had overspilled and tools and construction material was spread all over the place. The river's water level was still almost on bank level and running very fast. We started

to distribute blankets, tea, and something to eat to the volunteers. Afterwards, the management team began to evaluate the situation. They asked the volunteers to explain what had happened during the night. Around 30 minutes after our arrival, George, the URCS operations manager, arrived on site. Altogether, the team assessed the different areas of the water treatment plant to categorize the level of destruction. They started with the water tanks and the water pumps and continued with the latrines and the volunteer camp. Later on our way back, Benjamin explained: "We just created three categories: 1.Touched by flood but ok. 2. Touched by flood, not ok but can be repaired. 3. Touched by flood and broken. So we had a better picture of how bad it was and could decide what to do next." Together with Ismael they discussed how and what to do next. The water treatment plant needed to be put back into operation as soon as possible since its outage put additional pressure on the remaining water facilities. Based on their initial assessment the management team agreed on a recovery plan to restore water production. The recovery plan included a bundle of ad-hoc activities that aimed at restoring the original process of producing drinking water, which was suspended for now. In order to regain complete functionality the water tanks had to be put back to their original location and some of their roofs had to be restored. Benjamin and Konstantin supervised the clean-up operations together with the volunteers. Maria and George started making phone calls, informing partnering agencies about the situation and organizing equipment from other URCS sites. At dinner that day, Benjamin and Konstantin reported that the water treatment plant would start producing again next day.

This vignette illustrates how the URCS was able to respond to a sudden contingency caused by the flooding of its water facility. This external disruption shattered the predictability of the workflow to achieve the task, since the tightly scheduled and interlinked production of drinkable water was interrupted for an unpredictable amount of time. However, the accountability for the task and consequently, for fixing the problem was undisputed, as Konstantin expressed it: "We need to fix this […]. Everyone relies on us." Only since accountability remained undisputed and URCS felt that keeping the water production plant running was critical, the identified significant loss of predictability became the key challenge that needed to be addressed. Being at the mission, a one-hour car ride away from the facility, the lack of information about the situation caused serious worries among the team members, since it was unclear how to proceed and if and when the water production could be taken up again. Therefore, the team decided to go to Enyau as fast as possible to assess the situation on-site and gather sufficient information.

By quickly categorizing damages, developing and implementing a recovery plan, it was possible to regain predictability and to accomplish the original task – water purification – in less than 24 hours. Since URCS's accountability to deliver on the task was uncompromised internally, all efforts were made to achieve this restoring as soon as possible and thereby prevent a cascading effect.

As this vignette exemplifies, active process restoring enabled URCS to respond to a loss of predictability caused by a sudden contingency that was perceived as critical. Due to the significance of the task, it could not be compromised for too long because insufficient water supply seriously threatened refugees' lives. Since URCS was aware of its accountability for the task, URCS had no choice but to devote all efforts to immediately establishing temporary recovery measures that aimed at restoring and stabilizing the original task. Performing process restoring activities resulted in new and addition coordination efforts since spare parts had to be organized, someone needed to take care of the volunteers, and partnering agencies needed to be informed about the situation. Those efforts were not part of the originally designed coordination process to accomplish the given task but they emerged as a result of URCS' endeavor to respond to the sudden contingency. Thus, process restoring is different from reorganizing routines or re-ordering work (Bechky & Okhuysen, 2011). It required the integration of entirely novel and improvised coordination efforts to rebuild the integrating condition of predictability, which then enabled URCS to re-instigate the original task of water production. As Maria explained:

> "There was no doubt we need to fix this as fast as possible but honestly, I had no clue how. I mean, there is no SOP named 'Rebuild water facility after flooding', so you just go step by step, see what you need to do and then figure out how to do it…, whom to call and so on."

In order to stabilize the original task and prevent it from being terminated, it was hence, necessary to execute novel coordination efforts quickly.

Dynamic resourcing

Facing this turbulent, dynamically unfolding setting required URCS to continuously monitor its own operations, since the threat of emerging disruptions was omnipresent. URCS was thus constantly assessing its own coordination process in order to identify potential risks of getting overstretched. Sometimes URCS' operations were threatened by decisions of other partners compromising URCS coordination efforts. To prevent further disruptions, those threats needed to be addressed quickly. URCS responded to those potential overextensions of their own coordination efforts by swiftly reallocating its resources. We refer to this practice as dynamic resourcing, which enabled URCS to stabilize the accomplishment of tasks even during times when operations were in danger of being disrupted due to overwhelming workloads and quickly shifting internal priorities. The following vignette gives an example of this practice.

Vignette 2 (Re-allocating volunteers from sanitation to crowd control)

Original Task:
One of the tasks being performed by URCS was crowd control at the reception center at Imvepi settlement. URCS deployed a specific team of volunteers, which was responsible for this task, which included several sub-tasks: welcoming new arrivals and guiding them through the registration process, taking care of luggage storage, and ensuring a calm and orderly transportation of refugees and their belongings to the settlement areas. Andrew, who was responsible for managing the reception center on behalf of URCS, supervised the team. Shortly after Imvepi settlement had been opened in February 2017 the reception center was already completely overcrowded and the infrastructure was about to burst. The reception center was supposed to host about 1,600 refugees. At that time, the reception center was hosting around 14,000 people because the preparation of the settlement areas could not keep up with the number of new arrivals. This created a number of risks, e.g. outbreak of cholera due to high density and insufficient sanitary infrastructure, or a lack of food and drinking water. A few days earlier Andrew had already described the situation the following way: "Structures are overstretched, at the moment we are just trying to keep things going."
Disruption:
However, one morning, the leading UN-agency had decided to re-locate about 5500 refugees from the reception center to the settlement areas within one day, without prior consultation of URCS. This created a very hectic situation in the reception center. Refugees were all over the place with their luggage. Children were running around, large groups of people were gathering on dusty grounds to board the buses and trucks, which would transport them into the settlement areas. Families were sitting on their packed belongings – under the burning sun, temperature hitting 47 degrees Celsius – waiting to be transported. The boarding process took hours and

the atmosphere became tense. Women and small children had problems to carry all their luggage and board onto the trucks. Around 2 pm, a brief conversation between Andrew and a UN field officer revealed: "They want to resettle everyone who has registered before 2 pm. But it's crazy how they actually go about it. You see the families sitting here in the heat, no water, nothing; you cannot do it this way. This is getting dangerous."

Orienting Towards Absence:

Andrew walked over to the boarding area to get a better impression of what was going on. He talked to the crowd control team leader, who was just assisting an elderly woman to board a truck. He looked exhausted with sweat running from his forehead. "I don't know for how long we can keep doing it this way, you never know when the trucks will return, the atmosphere is getting tense and we have been going like this since the early morning without a break", he explained. Andrew offered him a sip from his water bottle and tried to calm him. Then he walked over to another truck, where another volunteer confirmed her team leader's appraisal. After ten minutes of further assessment, Andrew concluded: "Ok, we need to do something here fast, this is getting dangerous and no one knows how many refugees we still need to relocate and how long it will take. We are losing control over the situation."

Coordinating Practice:

Andrew walked straight over to the NFI distribution area. He walked very fast and one could feel that he was worried from the look of his face. At the NFI distribution area, he found the leader of the hygiene promotion team. He told him about the chaos and the urgent need at the boarding area and explained that immediate help would be much needed. The team leader asked him what Andrew wanted him to do and Andrew replied: "I guess at the moment we just lack manpower, so I think it would be best if you would send your team over to support the others." They quickly agreed that the hygiene promotion team could postpone their current activities and assist the crowd control team at the boarding area. Together they informed the team members to stop their current work and assist with the re-location immediately. 12 team members walked over to the boarding area and began to support their colleagues to proceed with their current activities. Some of them supported the families boarding the buses and trucks, some provided water for those who had been waiting in the sun without protection, whilst others assisted with loading the belongings of the refugees onto the trucks.

In the situation described above, the effective accomplishment of the crowd control task was perceived to be seriously threatened. The spontaneous decision of an external partner created an unexpected and overwhelming workload, which put high pressure on URCS' established processes and its ability to perform its activities. Consequently, the URCS team leader questioned whether its allocation of resources was still appropriate. As Andrew explained in the evening:

> "In that situation we were lost. We never had to relocate so many at once before. Our structures weren't ready. So we had to find a solution, otherwise it would have been chaos."

When Andrew realized that the situation was about to get out of control, he swiftly assessed the situation by consulting with the crowd control team leader. This assessment revealed that the predictability of the workflow was threatened because the team was about to be overwhelmed by the high number of refugees who needed assistance and it was unclear for how much longer the relocation would continue. However, URCS' accountability was unquestioned as Andrew explained in an interview:

> "See, whom we should have asked for help? They were all busy with their stuff. Also I don't wanna seem weak here, it's our job, so we find a solution."

After the assessment, Andrew and his colleagues were able to decide on an adequate response to the risky situation. Dynamically assigning resources, in this case staff, enabled URCS to address the breaking workflow and stabilize the accomplishment of the critical task. Thus, enacting dynamic resourcing as coordinating practice enabled URCS to actively address and prevent disruptions in the coordination process, which would endanger the execution of the original task. Dynamic resourcing is a coordinating practice that is close to re-order work, identified by Bechky and Okhuysen (2011), as it requires a switching of roles of some of the team members involved. However, dynamic resourcing also had an impact on the tasks of coordination: taking away resources from on activity (here hygiene promotion) and reassigning them to another task (crowd control), involved prioritizing tasks over each other. Like Andrew told us:

> "You have to get your priorities straight. In that situation no one will listen to a hygiene promoter on how to wash your hands, when there are 3,000 people waiting for support right next to you."

Seen this way, to safeguard and stabilize the coordination of one task, another task needed to be compromised and re-prioritized. Dynamic resourcing, thus, allowed to protect important tasks at the expense of at least temporarily omittable other tasks. As it was the case in the process restoring practice, URCS was still accountable to deliver on the task of crowd control but its execution and the predictability of the workflow were endangered; things were starting to get out of control. To ensure the successful accomplishment of the task, they had to prioritize and shift resources to re-gain predictability and thus stabilize the original task.

Task Modifying Practices

As a result of our analysis, we did not only identify coordination practices that were enacted to stabilize and protect the original task but we also observed coordination practices that were enacted in order to shift and modify the original task in the process of coordinating. During the South Sudan Refugee Situation URCS was confronted with changing demands that could either come up suddenly or emerge over longer periods of time. Consequently, URCS was constantly questioning its own accountability in asking if they were still doing the right thing. Due to the changing nature of the situation, URCS' managers felt that the accountability for tasks was constantly at stake: As a result of their assessments, tasks might become obsolete; they were claimed by other organizations, or shifted to other areas. In this context, URCS performed coordinating practices that we refer to as task modifying practices. These practices enabled URCS to adapt its coordination efforts to respond to a perceived loss of accountability.

Gap Spotting

Gap spotting was an important coordination practice that was enacted very frequently during the entire operation. It enabled URCS to cope with the discontinuous nature of the situation that rendered planning in advance very difficult. Whenever URCS managers concluded that prior plans revealed to be obsolete, URCS performed gap spotting, which is actually an in vivo

term. With gap spotting URCS responded to a perceived loss of accountability for a specific task. As a result, URCS had to re-establish its own accountability by modifying their original task in order to fit in again. A central element of the gap spotting practice was observing the activities of other agencies in the field and assessing the actual and most pressing needs of the refugees.

Vignette 3 (Identifying deployment site for ERU)

Original Task:
An initial assessment of the refugee settlement Palorinya had revealed a severe shortage of basic sanitary infrastructure. Consequently, URCS had requested the support of an emergency response unit (ERU) from the IFRC. This ERU, flown in from Europe with a huge cargo plane to Entebbe, then transported tons of equipment via truck over two days over poor roads. It was mandated to erect mass-sanitation facilities for approximately 20,000 beneficiaries in zone 1 of the Palorinya settlement within four months. Hence, the parameters of the task were well-defined and its accomplishment required several sub-tasks, such as identifying the precise locations for constructing latrines, acquiring construction materials, assigning and training volunteers, and evaluating and reporting the quality and progress of the construction works.
Disruption
Upon arrival at the settlement, the ERU attended an inter-agency coordination meeting in the morning. During the meeting, the team was informed that the situation in zone 1 had improved because another organization had taken over. Thus, they were advised to construct sanitary facilities at a different zone since there was no emergency situation anymore. The team was pretty upset that it could not begin with its activities as planned, since the deployment of an ERU is very cost-intensive and requires huge logistical efforts. William, the ERU team leader, explained in an interview: "The main goal now is damage control. I would hate to call the Headquarter in Europe and tell them: 'Oh hey, there is nothing to do for us here, it was all for nothing, we are coming back now.'"
Orienting Towards Absence:
Later on William added: "The problem is that the initial assessment is done by the national society and IFRC, and then it goes through the whole process and until the ERU finally arrives, it takes three weeks. Of course then the situation has changed because refugees move somewhere else or another agency takes over because they are just faster on the ground." Returning from the inter-agency meeting, the team sat down underneath a mango tree seeking for shadow during midday heat. The whole team was in a kindly depressed mood. Claire, who was on her first mission, remarked: "So that's it? There is just nothing left for us to do?" Conducting a quick assessment on their own revealed that in the originally designated are (zone 1) sufficient latrine infrastructure existed and the ERU would actually no longer be needed.
Coordinating Practice:
However, despite this initial lack of a task, William told his teammates: "Relax, that's how things work here… The refugees keep on coming, so they can't get enough latrines. If they don't

need them in zone 1, they'll need them somewhere else. We just need to get onto the ground and see where we can take over. So Jeremy, you know the settlement, where do you think the conditions are the worst?", he continued. Jeremy began to report about the latest experiences his volunteers had gained at different zones of the camp. Based on those experiences, they jointly decided to assess zone 3 of the camp. The entire team split up onto two off-road vehicles and drove towards zone 3. Upon arrival at a road crossing in the middle of zone 3, they met two staff members of ZWF[9] (another relief agency) who – as one could already see – had already started to build communal latrines. The assessment quickly revealed that the area was far from optimal but not in a state of emergency that needed immediate intervention by the ERU. William asked the ZWF members: "Are there any areas you think we could help, we could assist you?" The ZWF officer responded: "Well, I think at the moment we have everything under control." After three hours, the team returned to the base camp and William reported to George: "Actually, ZWF has done a good job. I think there is no need for us to work here." George agreed.
The next morning before departing from the hotel, William asked: "So what is the plan for today?" and George replied: "We can have a look at zone 1 in Palorinya once more and then we can assess two other settlements – Imvepi and Bidi Bidi – we just need to get permission by OPM." – "Yes, we need to take pictures from zone 1, so we can document that there is nothing left for us to do", William replied. The more detailed assessment of zone 1 confirmed their previous impressions: Not all was well but the basic sanitary infrastructure existed. The ERU, which in the meantime had directed two trucks from airport (a two-day truck ride) to Palorinya to offload their cargo, became increasingly frustrated. Since there was no valuable opportunity to deploy the ERU at Palorinya, George advised to drive to Imvepi (a new refugee settlement a three-hour drive away from Palorinya) as he thought the situation there would be more of an emergency case. William approved by saying: "Alright, so let's do some gap spotting." Imvepi settlement had been opened just two weeks earlier and all new arrivals from South Sudan were transported there. Whilst driving into Imvepi settlement, one could already that the situation turned out to be dramatically different as compared to Palorinya. Refugees were still living in the reception center area and the zones for relocation were just about to be prepared. It was very chaotic and relief was desperately needed. After a short assessment of the completely overcrowded reception center and meeting with the responsible URCS team leader the ERU proceeded to the base camp, where the camp commander's office was located. The camp commander confirmed: "We have gaps!" He agreed that it would be helpful to have the URCS on board to assist with latrine construction. For the following day, George organized a meeting with the camp commander and a representative of another humanitarian aid organization that was coordinating the efforts to establish a WASH (Water, Sanitation, Hygiene Promotion) infrastructure. Although the representative never showed up for that meeting, the ERU assessed, together with the camp commander, potential sites in the settlement area where latrines would be needed. William offered his help by saying: "We have funding, we have material already in the country and we therefore have the capacity to erect about 400 communal latrines quickly." The camp commander immediately said that this help would be more than welcome and that the ERU should start operating. Upon that invitation, the ERU moved its operations from

[9] Pseudonym

Palorinya to Imvepi. Here they started to identify the spots where latrines could be built and formed a team of volunteers to assist them with their construction works.

As the vignette illustrates, URCS' originally assigned accountability for constructing sanitary facilities at Palorinya zone 1 was contested because other agencies had already taken over. Their own assessment confirmed the information they had been given at the inter-agency meeting. Since their own assessment revealed that, the conditions in zone 1 were no longer an emergency building additional latrines in that area would not have been justifiable. However, instead of doing nothing or going back home, URCS responded to this loss of accountability by actively spotting for gaps they could fill in with their capacity and make a valuable contribution to improving the situation. Consequently, being flexible with the original task of constructing latrines in zone 1 at Palorinya, enabled URCS to regain accountability. Changing the location where the task had to be performed, enabled URCS to adapt swiftly to the initially identified loss of accountability and deploy its resources in a meaningful way. This modification was not a small change as it might sound. It meant moving tons of material with only scarce logistical support (lack of trucks), re-allocate more than 60 volunteers in buses, erect a new base camp and housing facilities for the volunteers, find a new accommodation for the ERU staff, seeking approval by the Red Cross headquarter, and collaborate with different partners at the new settlement. As George explained:

> "Oh man, this' gonna cause me some headache. It means to set up a complete new operation within two days without prior planning. And all we have is one truck whose driver doesn't answer his god damn phone but took the keys with him."

Gap spotting was thus, an important coordination practice since it enabled URCS to adapt its tasks to losses of accountability that had its origins in changing circumstances and to fit in into novel situations that developed different from prior plans. Modifying the task as a result of

spotting gaps where they could fit in was considered indispensable to accommodate to a loss of accountability and to regain it again. Matilde, the ERU's hygiene promoter, explained in an interview:

> "You have seen the warehouse with our stuff stapled up to the roof. What are we supposed to do, just sit and wait until it starts rotting? Things never work out as planned, so we just need to find our gap, where we can make a contribution."

This fitting in required a dynamic understanding of the task which was enacted and changed as part of the gap spotting practice. Seen this way, gap spotting is different compared to reorganizing work, as identified by (Bechky & Okhuysen, 2011). Whilst reordering work means reorganizing the sequence of independent sub-tasks while the overall task remains stable, gap spotting starts with questioning the task and spotting opportunities to allocate resources in a meaningful way even if that means modifying the task. Constantly assessing the situation and spotting for opportunities was thus a fundamental part of coordinating work for URCS. Gap spotting enabled them to remain open for changing circumstances and adjust their activities whilst being in the midst of it.

Adaptive De-Celerating

Adaptive de-celerating was a coordination practice enacted to purposefully slow down the speed of URCS's operations. Sometimes adapting coordination efforts to emerging challenges was difficult because URCS had the perception that the accountability for a task was diffused among the participating organizations. In those situations adaptive de-celerating enabled URCS to slow down its operations until those accountability challenges could be solved and accountability could be restored. At first sight, adaptive de-celerating seems counterintuitive in an

emergency setting were a fast and timely response to coordination challenges is regarded critical (Danner-Schröder & Geiger, 2016). However, during our observations adaptive de-celerating was a frequently enacted practice that significantly slowed down the pace of operations.

Vignette 4 (Latrine construction at Imvepi)

Original Task:
As described in vignette 3, the ERU had re-located from Palorinya to Imvepi. The location had been modified to accomplish the task of building mass sanitation facilities for 20,000 beneficiaries. Hence, the ERU began with the execution of the necessary sub-tasks. They assessed the designated area, started planning where exactly to commence building the latrines to fulfill international humanitarian standards (SPHERE) and employed a contractor to assist with the construction works since the terrain revealed to be very rocky and hand digging of latrine holes was not considered an option.

Disruption:
A few days after the first latrines had been built, the ERU's construction of latrines came under pressure. The camp management had decided to move refugees out of the reception center and relocate them into the settlement areas, without further consulting or informing the other agencies (as described in vignette 2). The area of the settlement where the refugees had been replaced lacked sufficient infrastructure and the situation quickly turned out to be very chaotic: Some refugees were sitting on the plain field whilst others started to move into other areas of the settlement, with some even simply returning to the reception center. In the ERU's evening meeting that day, Kathrin, the WASH engineer, was devastated and reported: "They are really offloading people from the reception center in an entirely new area of the settlement, basically in the open bushland. It is about 3,000 people but there's nothing – no water, no shelter, no latrines. And we don't know where to build latrines. There are no marks to identify the plots, so we can't start position the latrines right to comply with the standards."

Orienting Towards Absence:
William replied: "So can't we tell them to mark the plots for us? Then they can't complain." Kathrin argued: "Yes, I tried to talk to the site planner but she was so stressed because everyone was talking to her. All organizations have the same problems and I don't know how long it will take. In the meantime, Jordan (the contractor) is just going on and digging randomly." William asked: "So how many latrines has he built? Kathrin replied: "I don't know. We don't know where he builds them. He said he had built 50 within three days but we counted 13 two days ago. I don't trust him. By now, we don't know who does what where and if it's meaningful at all."

Coordinating Practice:
Upon acknowledging that the sudden displacement of refugees in new areas where no infrastructure existed the ERU decided that they would need to adapt their efforts in order to deploy their resources in the most meaningful way. However, at this point they did not have sufficient information about the sub-contractor's progress. Therefore, the team discussed on how to proceed. Finally, William concluded: "I think we should build not all of them [latrines] at once. I will talk to the contractor because we don't know if and how many [refugees] will settle down

where. A lot of them go back to the reception center. There they have shelter, water, and a hot meal. Out there is nothing. It's just a hot, rocky place." All team members agreed that this would be the best option.
A day later, William arranged a meeting with George and the contractor. He addressed his concerns that the ERU would need to adapt the latrine construction to the movement of the refugees and that they would need more detailed information about the progress of the contractor. William asked: "Okay so right now we need to see how the situation develops, could you slow down construction works until we found a way how to track your progress and we know more about the movement of the refugees?" "That is going to be difficult because I rented the digger and I need to pay for it every day. So if I slow down now, it becomes more expensive for me", Jordan replied. William became upset and said: "Well, but we can't pay you, if you don't build the latrines where we want them to be build. I have to discuss this with my team and see whether we find a solution."
In the evening, William brought up the topic at the ERU's team meeting. After a short discussion on how to proceed, William concluded: "Maybe we should tell him [the contractor] to the stop the construction works for the moment. Then we can figure out the issues with the locations. And then we can tell him exactly where to build the latrines."
The following day, William arranged another meeting with George and Jordan, at which William told the contractor to stop its operations for now. They agreed on building a team of volunteers, which would track his progress. Meanwhile, the ERU could find a way on how to deal with refugees' movement and come up with a new schedule and revised locations for the construction works.

As this vignette reveals, the unexpected relocation of refugees triggered the ERU to re-evaluate their current activities. As they had started to construct latrines in areas where no refugees had been settled whilst refugees were re-located in other areas of the settlement and were moving around, they decided that it would be necessary to slow down their activities to put them in a position to re-assess their task and adapt it to the unfolding situation. However, that turned out to be difficult since Jordan was unwilling to slow down. By employing a sub-contractor, the accountability for the latrine construction had become diffused from the perspective of URCS managers, which made it difficult to swiftly respond to the novel situation. By actively decelerating the construction activities, the ERU was able to re-gain accountability and identify areas where the construction of latrines would be meaningful. This created a paradoxical situation (Smith & Lewis, 2011) for the ERU: On the one hand they needed to erect the latrines fast to prevent the spread of diseases, on the other hand regaining accountability required them to

slow down their activities. As William explained it in an interview: "It makes no sense to let him [the contractor] continue, unless we don't have sufficient information. One latrine costs around $200, so we also have to watch our resources here." Instead of carrying on with the original task, they solved the loss of accountability by adaptive de-celerating: slowing down operations enabled them to gather information about their current progress and to grasp an idea of how the situation potentially might evolve. Seen this way, it was not an external event that slowed down their coordination efforts but it was their internal decision to bring operations to a hold in order to adapt their original task accordingly. Adaptive de-celerating thus, first called for a disentanglement from the developments that would have needed an urgent and fast response, and to accept the potential consequences of not sticking to the original task. This a-synchronization then builds the grounds for re-synchronization of activities at a later stage and to modify the task to fit the emerging situation. Particularly, this a-synchronization and de-coupling of activities from the situation was not easy to accomplish, as William expressed:

> "You know, you always need to explain that. You have seen the meetings. Every day, it's numbers, numbers, numbers and you need to report about your progress. Just have a look at the reception center; they keep on coming. In the end, there is no perfect way but sometimes you just need to take a breath and figure out what's the best solution."

Adaptive de-celerating is hence a coordinating practice that enables actors to deal with losses of accountability and re-gain them in dynamic situations by treating the task as a dynamic, changing one.

Processual Bandwagoning

As described above, the Ugandan refugee settlements were rapidly expanding and reached their maximum capacity within only a couple of months. Consequently, structures and processes to

accomplish a task were only considered suitable for a limited amount of time only. URCS regularly faced situations in which its established structures and processes did no longer meet the expanding needs of the refugees and thus, triggered URCS to question whether its current way of operating needed adaptation. However, adapting to expanding demands created situations of unspecified accountability because addressing an expanding demand could potentially interfere into another agencies' activities and it was unclear who was responsible to take care of novel activities. Those situations then called for a re-negotiation of accountability. Here, URCS enacted a coordinating practice we named processual bandwagoning. Processual bandwagoning enabled URCS to respond to expanding demands by negotiating accountability and to expand its own activities by hooking up on already existing processes of other organizations and thus demonstrate that they could quickly take care of the expanding needs.

Vignette 5 (Setting up soap distribution at Imvepi?

Original Task:
Originally, URCS had been mandated to distribute soap and other NFIs at the reception center in Imvepi. After arriving refugees had passed the registration process and were waiting to be resettled, they received basic supplies at a designated distribution point in the reception center. To perform this task on a daily basis, URCS had assigned a team of volunteers to organize the distribution. The team was in charge of checking registration lists procurement of NFIs, handling storage, and the actual distribution.

Disruption:
Initially, each member of a family received two pieces of soap upon arrival at the reception center. One piece of soap was supposed to last for one month. Now, that the settlement had been opened for around six months, the refugees, who had arrived in the beginning, were running out of soap, what could cause hygiene problems. Meanwhile the refugees had been relocated to the settlement areas and could no longer receive soap at the central distribution point in the reception center for two reasons: (1) The camp had reached an expansion of approximately 59 km² thus, refugees would have to pass very long distances. (2) As the number of inhabitants had reached more than 120,000, one single distribution point would have been completely overwhelmed.

Orienting Towards Absence:
Consequently, refugees began complaining about their insufficient supply with soap. The issue was brought up at a meeting between Bryan, the URCS NFI officer, his deputy Damian and representatives of the leading UN-agency and OPM. The participants questioned whether the current set-up of soap distribution was still adequate. Hygiene was still a sensitive issue, espe-

cially because of the raining season that could facilitate the spread of diseases. They acknowledged that, at the moment, there was no one actually accountable for the distribution of soap outside the reception center, which was a problem that needed to be resolved quickly. Bryan expressed his worries: "We need to act here fast; otherwise this will get us in big trouble. URCS distributes soap at the reception center but at the moment we have no mandate to distribute in the settlement areas."

Coordinating Practice:

He continued to argue that it would be the best to let URCS continue with the distribution. However, Bryan also expressed some concerns: "But we have to find a solution, how we manage the process. It will take us too long to set up everything from scratch." The other agencies were acknowledging Bryan's concerns and they were actively seeking for a potential solution. After a short discussion, a UN field officer came up with the idea that Global Matter[10] already had a process for distributing food rations in the settlement in place. He suggested asking Global Matter whether it would be possible for URCS to link up with them in order to start quickly with the soap distribution. Taking up this advice, Bryan and Damian called a Global Matter manager and agreed to evaluate whether they could link up with their established process of food distribution. The next day Bryan and Damian joined Global Matter at one of their distribution points, which were spread across the settlement. Global Matter was able to distribute a monthly ration of food to all refugees within four days. In order to accomplish this demanding task, Global Matter had established a sophisticated process of distribution, which they had already used in similar ways in many of their global operations. After having talked to Global Matter and observing the food distribution process in action, Bryan decided that it would indeed be a good idea to integrate the soap distribution into this process. In addition to the NFI distribution at the reception center, URCS expanded its distribution to the whole settlement area. Therefore, Bryan and a team of volunteers were setting up small distribution tents outside of the food distribution courts. Not only did URCS use Global Matter's distribution place but also did they adapt to Global Matter's schedule. Whenever Global Matter was distributing food at one of their distribution points, the URCS team distributed soap accordingly. After refugees had passed through the food distribution process, they automatically came by the soap distribution tent. Moreover, Bryan managed that Global Matter added soap as a new item on the food distribution form the refugees had to bring with them to receive the items they needed. Thus, refugees simply presented their food distribution form to URCS volunteers who then handed out the respective amount of soap per household. This ensured that each household received the appropriate amount of soap each month across the entire settlement.

As the settlement grew larger in seize (both, population and geographical wise), the ways to cater for the needs of the refugees changed as well. Members of URCS no longer saw distrib-

[10] Pseudonym

uting NFIs at the reception center as a sufficient task. Meeting expanding needs such as distributing soap across the entire settlement, however, required them to first gain accountability for this modified task. At first, they were lacking the accountability to expand their activities to the settlement areas, since responsibility was limited to distributing soap at the reception center. Enacting processual bandwagoning enabled URCS to quickly expand its activities by hooking up to already existing structures and processes. Being able to respond quickly to this expanding need allowed them to gain accountability for it; they could prove that they could deliver in a fast and efficient way. Processual bandwagoning involves the screening of the activities of other agencies, the recognition of a fit between the modified task and an already existing process and the adaptation and linking up of own processes to the existing processes of partner agencies; i.e. jumping on the bandwagon. This coordinating practice was considered quite often if modified tasks had to be performed quickly, as Damian said in an interview:

> "We don't have the capacity to set up everything on our own. So, if we see that there is an upcoming demand and we want to cover that as part of our operations, we just look out what the others do and how they do it. And sometimes it makes sense to just build upon that. Look at what Global Matter does, that's pretty amazing. We would have needed weeks to come up with that and get everything going."

Enacting processual bandwagoning enabled URCS to quickly gain accountability for modified tasks and adapt its coordination efforts to meet expanding needs. It is therefore different than re-assembling and flexibilizing routines (Danner-Schröder & Geiger, 2016) since it involves adapting one's own coordination efforts to the already existing coordination practices of partners and learn from them. This prevented URCS from re-inventing the wheel and develop their own infrastructure but instead allowed them to situate themselves into existing practices and align with them. This way modified tasks could be taken up very quickly and the scope of activities could be rapidly expanded.

A Process Model of Dynamic Tasking

As our study has shown, in turbulent settings organizational coordination efforts are continuously at stake due to sudden contingencies and the dynamically evolving nature of the situation. Moreover, our study has also shown that those disruptions become evident in a process that we labelled, in borrowing from Jarzabkowski et al. (2012: 913), "orienting towards absence". With orienting towards absence, we refer to the activity of actively seeking out the for issues that could potentially impede the coordination process. Hereby, the integrating conditions of coordination become contested in action. Orienting towards absence turned out to be a crucial step in re-enabling coordination in the face of disruption. As our findings have shown, URCS members were constantly engaged in assessing the situation and scan for potential threats that could impede the successful coordination of their activities. This orienting towards absence at least implicitly refers to the three integrating conditions necessary for coordination, as outlined by Okhuysen and Bechky (2009). In our case, particularly predictability and accountability were of central concern to emergency operators. And, as our findings show, depending on which integrating condition was disrupted, different coordinating practices were enacted leading to different implications with regard to the task at hand. In case the predictability of the workflow got impaired, URCS decided to act upon since accountability remained unchanged, URCS members engaged in practices to reorganize the workflow in such a way that the original task could be maintained despite the disruption. Practices such as process restoring or dynamic resourcing were central in order to establish a novel workflow that allowed coordinating towards the original task. Seen this way, process and task were disentangled by URCS: different coordination processes lead to the coordination and achievement of the same task (equifinality). The ability of being flexible with the workflow and being prepared to re-organize or even enact novel workflows enabled them to keep the execution of the task stable despite sudden contingencies threatening its achievement. Enacting a stable task was hence, achieved by enacting

flexible approaches (Farjoun, 2010). Ensuring the reliable execution of a task with low outcome variation required a significant degree of effort by enacting specific coordinating practices. Here, reliability in the face of dynamic conditions required diversity and flexibility in the process (Farjoun, 2010: 207). Changes in the process of coordination enabled stable outcomes (Farjoun, 2010: 206).

In case, however, the accountability to enact a specific task was impaired, URCS enacted specific practices to restore accountability, which meant modifying the original task in order to make a meaningful contribution to coping with the novel circumstances. Simply continuing with the stable unchanged task would not have been a meaningful endeavor in the face of changing condition. Only modifying the original task to the novel and changed conditions put them into a position to regain accountability. URCS enacted gap spotting with the aim of modifying their task in such a way that URCS could deploy its capacities in the most meaningful way and would fit into the novel circumstances. Only by keeping the task flexible and open for modification enabled URCS to regain accountability and thus, the license to maintain their operations. Adaptive de-celerating was enacted in case URCS became unease because according to their own sensemaking, accountability became unclear since it was diffused among various actors thereby, impairing URCS' ability to adapt quickly to emerging situations. Here, external triggers did not jeopardize accountability but it was questioned internally (are we doing the right things here?). Slowing down the operations (de-celerating) enabled emergency managers to regain accountability by adapting the task accordingly to fit the novel situation. Acting slower in the face of emergencies thus, enabled them to re-establish accountability and re-gain orientation in an, at first, diffuse and unclear situation. Processual bandwagoning was enacted in case the accountability for a task was not established from the perspective or URCS, since novel demands emerged out of the dynamic situation and it was not yet decided who would be responsible for delivering this novel demand. Enacting processual bandwagoning thus, enabled

URCS managers to quickly hook up on existing processes, which in turn enabled them to gain accountability. Showing flexibility in the task and being open to adapt to proven structures enabled URCS managers to quickly take care of emerging demands in the field. Consequently, by enacting processual bandwagoning lead to a modification of the task. As our findings show, in cases of breaches in accountability, being flexible in the process allows for flexibility in the task, and the other way round: By seeing the task as something that may change and shift, opens up flexible ways of coordinating. Flexibility in the task is thus, achieved through flexibility in the process and vice versa, flexible processes enable flexible tasks (Farjoun, 2010; Hussenot & Missonier, 2016). Figure II. 3 is designed to graphically represent the process of coordinating towards tasks in turbulent settings.

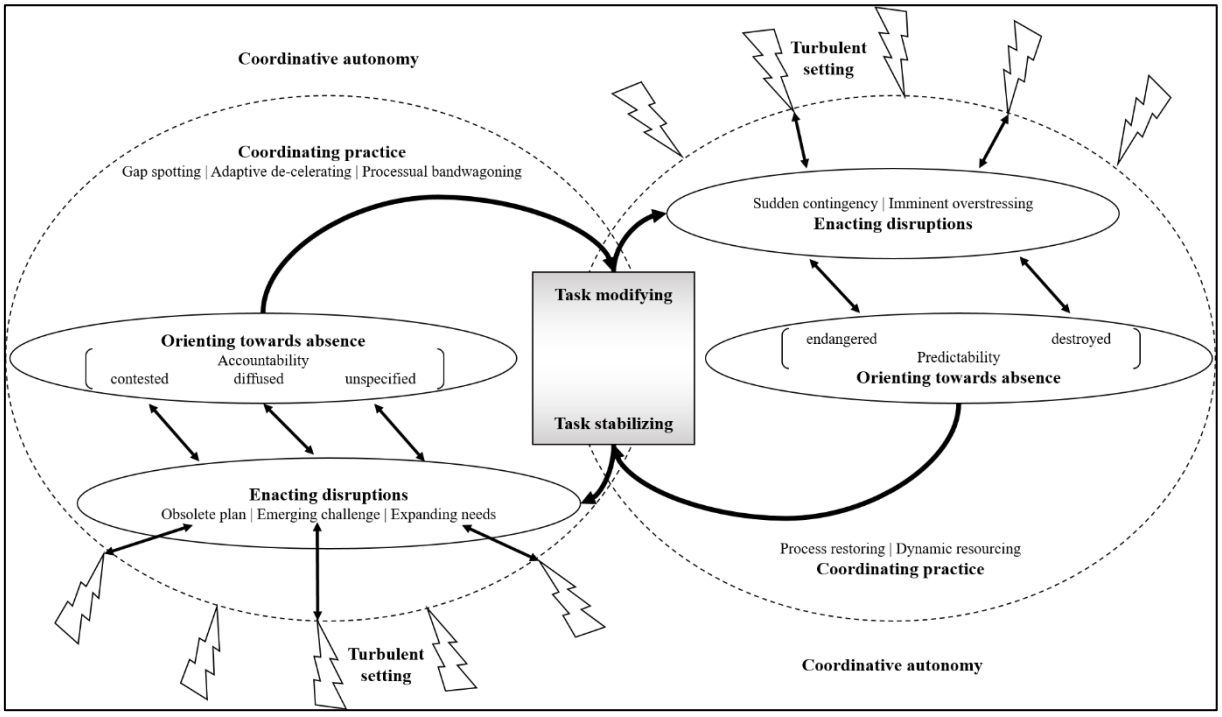

Figure II. 3: A Process Model of Enacting *Coordinative Autonomy*

Discussion

By studying how organizations handle tasks in the process of coordinating in turbulent settings in an effort of not getting overwhelmed, we have developed a process model of coordinating. This model illustrates how practitioners enact specific coordination practices in an effort to

stabilize or modify tasks, which in turn enabled them to continue their operations amidst a dynamically changing setting. Our study has the potential to contribute to theory of coordination in at least two ways: First, we found that practitioners actively orient their attention towards absent integrating conditions that impaired coordination. Our findings indicate that practitioners are actively constructing disruptions of coordination themselves and not simply respond to events that somehow occur. They thereby create important *coordinative autonomy* for the organization in the midst of highly volatile and unpredictable settings. Second, we argue that coordination is a process of tasking, i.e. that tasks and coordination are rather dualities than means and ends as it is commonly conceptualized. Only having a flexible approach towards tasks enables organizations to coordinate in fast changing dynamic settings.

Enacting Coordinative Autonomy

As outlined above, coordination is believed to be based on the three integrating conditions: accountability, predictability, and common understanding (Okhuysen & Bechky, 2009). As research has shown, these three integrating conditions are either the result of a specific design or they actually emerge in the process of coordination (Wolbers et al., 2018: 1523). Latest studies hence, have conceptualized coordination as a process that is continuously challenged by external disruptions that practitioners need to attend to (Jarzabkowski et al., 2012). As such coordination mechanisms are not a pre-condition for coordination but actually emerge within the process of coordination (Jarzabkowski et al., 2012: 920). Here, orienting towards absence and enacting disruptions are identified as early phases of coordination that are necessary to disrupt pre-existing structures in processes of change (Jarzabkowski et al., 2012: 920). Only this way established means of coordinating can be destroyed and barriers to these means can be enacted (Jarzabkowski et al., 2012: 918). Orienting towards absence is thus fundamental to establish novel ways of coordination.

Our study contributes to this idea of orienting towards absence by firstly showing that this orienting towards absence and the enactment of disruption do not happen just in early phases of coordination, where old structures need to be broken but instead are continuously practiced by actors in dynamic settings. As our findings have shown, actors were continuously and actively searching for missing integrating conditions and actively disrupted their own coordination efforts by challenging their accountability or the predictability of their operations. And second, as we would argue, this is not simply a response to the dynamic nature of the context but instead alludes to a more fundamental process of gaining necessary *coordinative autonomy* against a highly uncertain and ambiguous environment. Commonly disruptions and impaired integrating conditions are conceptualized as unexpected events or crises that jeopardize coordination, presenting themselves as a coordination problem that needs to be addressed by skilled practitioners (Bechky & Okhuysen, 2011; Faraj & Xiao, 2006; Wolbers et al., 2018). From such a perspective, disruptions leading to impaired integrating conditions is something that happens outside the process of coordination; a sudden, unexpected impulse or shock from the environment. Following this logic, practitioners then put a lot of effort into restoring these integrating conditions in order to coordinate successfully again.

Our findings, however, have the potential to shed a different light on these disruptions. As our study shows, practitioners were not simply waiting until something in the environment happened that would impair their coordination efforts (expecting the unexpected) but instead they were actively seeking for impaired integrating conditions and enacted the disruption themselves by challenging predictability or accountability; i.e. the disruption was actively constructed and enacted by the practitioners. Constantly challenging themselves (are we still doing the right thing?) put them into a position to act in such a highly complex and ambiguous environment by being able to stabilize or modify the task. These findings can be better understood in light of modern systems theory (Luhmann, 1995; Schneider, Wickert, & Marti, 2016; Schreyögg &

Sydow, 2010; Seidl, 2005). Following this argument, organizations need to construct and maintain a boundary to their environment (Luhmann, 1995). This boundary implies a difference in levels of complexity: Whereas the environment is highly complex, here understood as the number of possible connections between elements, the organization operates on a lower level of complexity (Schreyögg & Sydow, 2010: 1253). The complexity is thus, higher in the environment as compared to the organization. Seen this way, organizations are in a continuous process of becoming (Tsoukas & Chia, 2002) by constantly enacting and re-enacting their boundary to the environment. By selecting what aspects in the environment are relevant for them and which are not, organizations create a self-referential boundary of inside and outside, thereby reducing complexity to a level they can actually handle (Seidl, 2005). This selection of what is relevant and should be acted upon and what not is thus an operation (a decision) of the organization, not the environment (Luhmann, Baecker, & Barrett, 2018). Reducing complexity thus implies that organizations cannot take every potential aspect of their environment into account at the same time (Schreyögg, 1980). As Perrow (1974: 41) has put it, organizations are: "[…]able to select the environment they wish to deal with". By actively selecting what is relevant and what not, organizations gain the necessary autonomy to act and to become an organization at the first place. Without such a selection an organization would be equal to with its environment and therefore would simply not exist (Schreyögg & Sydow, 2010: 1254). By selecting, organizations make sense out of the environment and constitute themselves as an autonomous system (Orton & Weick, 1990).

Hence, in light of our findings, practitioners were making sense out of the ambiguous situation by actively searching for relevant cues and by enacting disruptions in the process of coordination. Enacting disruptions put them in a position to operate in a relatively autonomous fashion and avoid getting overwhelmed by these challenging conditions. Coordination in turbulent settings is therefore not an effort of restoring integrating conditions after they had been disrupted

in the first place. Instead, following our findings, coordination is a continuous process of enacting disruptions, re-enacting integrating conditions, and disrupting them once again. This way, organizations enact what we have called *coordinative autonomy*. With *coordinative autonomy*, we refer to the ability of organizations to enact coordination based on their own discretion. Thus, successful coordination ensures that organizations maintain autonomous in their responses and avoid getting overwhelmed by seemingly turbulent, uncertain, and ambiguous situations. Coordination in these situations is thus, a continuous process of enacting disruption and engaging in restoring integrating conditions. Choosing disruptions and acting upon them is hence, indispensable to avoid being simply driven by the circumstances and thereby drifting into an unmanageable level of complexity. Disruptions are thus integral to coordination.

Coordinating as Tasking

Conventional theories of coordination conceptualize the task that needs to be achieved as the end and coordination as the mean to achieve this task. Commonly, the task is given ex-ante to processes of coordination that are enacted in order to achieve this very task. Unexpected events might make the re-organization of work in a process of bricolage necessary (Bechky & Okhuysen, 2011) but the underlying assumption remains: Coordination unfolds against a pre-given task.

Our findings, however, show that coordination does not begin with a pre-defined task that guides coordination efforts but instead the task is a continuous process of becoming as part of coordination practices (Tsoukas & Chia, 2002; Whitehead, 2010). Building on process theory (Hernes, 2007), we argue that tasks are not ‘things’ that need to be accomplished by coordination but are continuously created and re-created emerging processes that are enacted by and through coordination practices.

Seen this way, tasks are not fixed and stable entities that need to be coordinated but instead tasks are being constructed in a process of coordination. Thus, coordination and tasks are dualities (Farjoun, 2010), not means and ends as conventional thinking suggests. This insight is consistent with a process-philosophical framework that holds entities which appear to us as 'things' are rather temporal patterns within the constant flux of processes (Emirbayer, 1997; Tsoukas & Chia, 2002). As we could show, tasks only emerge from a process of coordination (Hærem et al., 2015: 456). To indicate this processual nature of tasks and coordination, we prefer to speak of tasking and coordinating. This extends insights on coordination and furthers our understanding of coordination as process (Jarzabkowski et al., 2012; Okhuysen & Bechky, 2009). Whilst Jarzabkowski et al. (2012: 920) quite convincingly argue that coordination mechanism are not mechanisms that are used for coordination but instead are enacted in a process of coordination, our insights complement this perspective by arguing that tasks likewise are enacted in a process of coordination. A dynamic perspective on tasks of coordination provides more scope for our understanding of coordination in turbulent, extreme environments. It recognizes that tasks are not static but are constantly challenged, discontinued, disrupted, or even dissolving in the process of coordination. Only by constantly enacting and re-enacting tasks (by stabilizing or modifying), organizations that operate in highly dynamic settings gain *coordinative autonomy*. The absence of clear and static tasks is not the exception in turbulent situations but rather the expected normal. In ambiguous situations, disputes over tasks occur and a multiplicity of differing interpretations of the task emerge if multiple actors are engaged (Quarantelli, 1988), priorities may shift as the situation changes and thus task dynamics are to be expected. As new information might become available, new actors enter the field, novel response groups emerge, different issues may come into focus, so that different tasks might become salient (Majchrzak et al., 2007) or even multiple, sometimes conflicting tasks are carried out at once (Gilbert, 2006; Gümüsay, Smets, & Morris, 2019). Such a dynamic perspective on tasks helps

us to explain how coordination is carried out in fast response settings under conditions of high ambiguity and discontinuity, accepting that organizations dynamically stabilize or modify tasks in the process of coordinating. As tasks are not frozen in time (Hærem et al., 2015: 456), such a dynamic perspective on tasks makes us sensitive to the various ways tasks can change in the process of coordinating and allows us for better understanding the dynamic change of task complexities over time.

Conclusion and Implications

In our paper, we have explored how tasks are handled in the process of coordinating in turbulent settings, which are often caused by crises, catastrophes, or natural disasters. We have shown that establishing *coordinative autonomy* by enacting disruptions and integrating conditions is fundamental for not getting overwhelmed in these settings and being able to coordinate in a meaningful way. Furthermore, our study has shown that tasks of coordination are not static but in flux during the process of coordinating itself. Only this way coordination can unfold against the background of extreme and demanding situations. This also has important implications for emergency managers: While the field is still dominated by a planning approach, our study shows that the ability to enact *coordinative autonomy* whilst remaining flexible with regard to the task is a fundamental capability. This implies to withstand immediate impulses to act, to actively wait in very demanding situations to be able to choose on which aspects one needs to act upon and which are better to be ignored. Withstanding this pressure is even more important as situations become more adverse and complex. This capability is not something organizations can anticipate in the form of contingency plans but it needs to be enacted in situ. This requires training of emergency managers to be able to enact disrupting and integrating coordination practices that allow for a flexible response based on autonomous choices.

References

Baker, N. D., Feldman, M. S., & Lowerson, V. (2013). Working through disaster: Re-establishing mental health care after hurricane Katrina. *Disaster Medicine and Public Health Preparedness, 7*(3), 222-231. https://doi.org/10.1001/dmp.2012.12

Bechky, B. A. (2006). Gaffers, gofers, and grips: Role-based coordination in temporary organizations. *Organization Science, 17*(1), 3-21.

Bechky, B. A., & Okhuysen, G. A. (2011). Expecting the unexpected? How SWAT officers and film crews handle surprises. *Academy of Management Journal, 54*(2), 239-261. https://doi.org/10.5465/AMJ.2011.60263060

Bigley, G. A., & Roberts, K. H. (2001). The incident command system: High-reliability organizing for complex and volatile task environments. *Academy of Management Journal, 44*(6), 1281-1299. https://doi.org/10.2307/3069401

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London - Thousand Oaks - New Dehli: Sage Publications Inc.

Collins, H. (2004). Interactional expertise as a third kind of knowledge. *Phenomenology and the Cognitive Sciences, 3*(2), 125-143.

Cornelissen, J. P., Mantere, S., & Vaara, E. (2014). The contraction of meaning: The combined effect of communication, emotions, and materiality on sensemaking in the Stockwell Shooting. *Journal of Management Studies, 51*(5), 699-736. https://doi.org/10.1111/joms.12073

Danner-Schröder, A., & Geiger, D. (2016). Unravelling the motor of patterning work: Toward an understanding of the micro-level dynamics of standardization and flexibility. *Organization Science, 27*(3), 633-658.

de la Chaux, M., Haugh, H., & Greenwood, R. (2018). Organizing refugee camps: "Respected Space" and "Listening Posts". *Academy of Management Discoveries, 4*(2), 155-179. https://doi.org/10.5465/amd.2017.0040

Dittrich, K., Guérard, S., & Seidl, D. (2016). Talking about routines: The role of reflective talk in routine change. *Organization Science, 27*(3), 678-697.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal, 50*(1), 25-32.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes* (2nd ed. Vol. 2). Chicago - London: The University of Chicago Press.

Emirbayer, M. (1997). Manifesto for a relational sociology. *American Journal of Sociology, 103*(2), 281-317.

Faraj, S., & Xiao, Y. (2006). Coordination in fast-response organizations. *Management Science, 52*(8), 1155-1169. https://doi.org/10.1287/mnsc.1060.0526

Farjoun, M. (2010). Beyond dualism: Stability and change as a duality. *Academy of Management Review, 35*(2), 202-225.

Feldman, M. S., & Orlikowski, W. J. (2011). Theorizing practice and practicing theory. *Organization Science, 22*(5), 1240-1253. https://doi.org/10.1287/orsc.1100.0612

Gilbert, C. G. (2006). Change in the presence of residual fit: Can competing frames coexist? *Organization Science, 17*(1), 150-167.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods, 16*(1), 15-31.

Gkeredakis, E. (2014). The constitutive role of conventions in accomplishing coordination: Insights from a complex contract award project. *Organization Studies, 35*(10), 1473-1505. https://doi.org/10.1177/0170840614539309

Glaser, B. G. (2008). Conceptualization: On theory and theorizing using grounded theory. *International Journal of Qualitative Methods, 1*(2), 23-38.

Goodall Jr., H. L. (2008). *Writing qualitative inquiry: Selves, stories, and the new politics of academic success*. Walnut Creek: Left Coast Press Inc.

Gümüsay, A. A., Smets, M., & Morris, T. (2019). 'God at work': Engaging central and incompatible institutional logics through elastic hybridity. *Academy of Management Journal*. https://doi.org/10.5465/amj.2016.0481

Hærem, T., Pentland, B. T., & Miller, K. D. (2015). Task complexity: Extending a core concept. *Academy of Management Review, 40*(3), 446-460.

Hällgren, M., Rouleau, L., & de Rond, M. (2018). A matter of life or death: How extreme context research matters for management and organization studies. *Academy of Management Annals, 12*(1), 111-153. https://doi.org/10.5465/annals.2016.0017

Harrison, S. H., & Rouse, E. D. (2014). Let's dance! Elastic coordination in creative group work: A qualitative study of modern dancers. *Academy of Management Journal, 57*(5), 1256-1283.

Hernes, T. (2007). *Understanding organization as process: Theory for a tangled world*. London: Routledge.

Hussenot, A., & Missonier, S. (2016). Encompassing stability and novelty in organization studies: An events-based approach. *Organization Studies, 37*(4), 523-546. https://doi.org/10.1177/0170840615604497

Jarzabkowski, P. A., Le, J. K., & Feldman, M. S. (2012). Toward a theory of coordinating: Creating coordinating mechanisms in practice. *Organization Science, 23*(4), 907-927. https://doi.org/10.1287/orsc.1110.0693

Kellog, K. C., Orlikowski, W. J., & Yates, J. (2006). Life in the trading zone: Structuring coordination across boundaries in postbureaucratic organizations. *Organization Science, 17*(1), 22-44.

Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review, 24*(4), 691-710.

Langley, A., Smallman, C., Tsoukas, H., & Van de Ven, A. H. (2013). Process studies of change in organization and management: Unveiling temporality, activity, and flow. *Academy of Management Journal, 56*(1), 1-13. https://doi.org/10.5465/amj.2013.4001

Luhmann, N. (1995). *Social systems*. Stanford: Stanford University Press.

Luhmann, N., Baecker, D., & Barrett, R. (2018). *Organization and decision*. Cambridge, UK: Cambridge University Press.

Majchrzak, A., Jarvenpaa, S. L., & Hollingshead, A. B. (2007). Coordinating expertise among emergent groups responding to disasters. *Organization Science, 18*(1), 147-161. https://doi.org/10.1287/orsc.1060.0228

Okhuysen, G. A., & Bechky, B. A. (2009). Coordination in organizations: An integrative perspective. *The Academy of Management Annals, 3*(1), 463-502.

Orton, J. D., & Weick, K. E. (1990). Loosly coupled systems: A reconceptualization. *Academy of Management Review, 15*(2), 203-223.

Perrow, C. (1974). Is business really changing? *Organizational Dynamics, 3*(1), 31-44. https://doi.org/10.1016/0090-2616(74)90003-5

Quarantelli, E. L. (1988). Disaster crisis management: A summary of research findings. *Journal of Management Studies, 25*(4), 373-385. https://doi.org/10.1111/j.1467-6486.1988.tb00043.x

Schneider, A., Wickert, C., & Marti, E. (2016). Reducing complexity by creating complexity: A systems theory perspective on how organizations respond to their environments. *Journal of Management Studies*, 1-27. https://doi.org/10.1111/joms.12206

Schreyögg, G. (1980). Contingency and choice in organization theory. *Organization Studies, 1*(4), 305-326.

Schreyögg, G., & Sydow, J. (2010). Crossroads: Organizing for fluidity? Dilemmas of new organizational forms. *Organization Science, 21*(6), 1251-1262.

Seidl, D. (2005). *Organisational identity and self-transformation: An autopoietic perspective*. Aldershot, UK: Ashgate Publishing.

Seybolt, T. B. (2009). Harmonizing the humanitarian aid network: Adaptive change in a complex system. *International Studies Quarterly, 53*(4), 1027-1050.

Siggelkow, N. (2007). Persuasion with case studies. *Academy of Management Journal, 50*(1), 20-24.

Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review, 36*(2), 381-403. https://doi.org/10.5465/amr.2009.0223

Strauss, A. L., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Thousand Oaks: Sage Publications.

Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research techniques*. Thousand Oaks: Sage Publications.

Suarez, F. F., & Montes, J. S. (2019). An integrative perspective of organizational responses: routines, heuristics, and improvisations in a Mount Everest expedition. *Organization Science, in press*. https://doi.org/10.1287/orsc.2018.1271

Toole, M. J., & Waldman, R. J. (1997). The public health aspects of complex emergencies and refugee situations. *Annual review of public health, 18*(1), 283-312. https://doi.org/10.1146/annurev.publhealth.18.1.283

Tsoukas, H., & Chia, R. (2002). On organizational becoming: Rethinking organizational change. *Organization Science, 13*(5), 567-582.

UNHCR. (2017a). *Flash Update: Uganda: South Sudan Refugee Situation; Bi-Weekly Update 06 Jan 2017*. Retrieved from https://ugandarefugees.org/wp-content/uploads/75_Uganda-Flash-Update-on-the-South-Sudan-Emergency-Response-6-Jan-2017.pdf

UNHCR. (2017b). *Flash Update: Uganda: South Sudan Refugee Situation; Bi-Weekly Update 06 Mar 2017*. Retrieved from http://data.unhcr.org/SouthSudan/download.php?id=3103

UNHCR. (2017c). South Sudan's refugee crisis now world's fastest growing, Uganda and region in critical need of help. Retrieved from http://www.unhcr.org/news/briefing/2017/3/58cba77f4/south-sudans-refugee-crisis-worlds-fastest-growing-uganda-region-critical.html

UNHCR (Cartographer). (2017d). Uganda refugees and asylum-seekers. Retrieved from http://data.unhcr.org/SouthSudan/download.php?id=3064

UNISDR. (2015). *Making Development Sustainable: The Future of Disaster Risk Management. Global assessment report on disaster risk reduction 2015—Making development sustainable:The future of disaster risk management.* Retrieved from Geneva: http://www.preventionweb.net/english/hyogo/gar/2015/en/gar-pdf/GAR2015_EN.pdf.

van der Vegt, G. S., Essens, P., Wahlström, M., & George, G. (2015). Managing risk and resilience. *Academy of Management Journal, 58*, 971-980. https://doi.org/10.5465/amj.2015.4004

Van Maanen, J. (1988). *Tales of the field: On writing ethnography*. Chicago: University of Chicago Press.

Van Maanen, J. (2011). Ethnography as work: Some rules of engagement. *Journal of Management Studies, 48*(1), 218-234.

Watson, T. J. (2011). Ethnography, reality, and truth: The vital need for studies of 'how things work' in organizations and management. *Journal of Management Studies, 48*(1), 202-217.

Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly, 38*(4), 628-652. https://doi.org/10.2307/2393339

Weick, K. E., & Roberts, K. H. (1993). Collective mind in organizations: Heedful interrelating on flight decks. *Administrative Science Quarterly, 38*(3), 357-381. https://doi.org/10.2307/2393372

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (1999). Organizing for high reliability: Processes of collective mindfulness. *Research in Organizational Behavior, 21*, 81-123.

Whitehead, A. N. (2010). *Process and reality*. New York: Simon and Schuster.

Wolbers, J., Boersma, K., & Groenewegen, P. (2018). Introducing a fragmentation perspective on coordination in crisis management. *Organization Studies, 39*(11), 1521-1546. https://doi.org/10.1177/0170840617717095

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Thousand Oaks, CA: Sage Publications, Inc.

Essay III

Crafting Space: On Boundaries, Distance, and Movement in Crises Management

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conditionally accepted at Research in the Sociology of Organizations

(VHB Jourqual 3: B)

Abstract

Crises are events that cohere in time and space. Although a lot of research has explored the effect of temporal constraints on various aspects of crisis management like coordination, leadership, or decision-making, the spatial facets of crises have been largely neglected. Our contrasting, ethnographic case study of two different refugee camps explores how organizations actually deal with the spatial challenges that occur during crises and how organizations purposefully enact spatial practices to overcome crises and to contribute to crisis relief. We show that organizations enact *authoritarian*, *adaptive*, and *collaborative spacing* practices for dealing with the critical conditions inside the camps. Hereby, they enact boundaries either as physical stopping points, as permeable orientation marks, or as meeting points in order to regulate movement and distances inside the camps. We thus, contribute to theory on crisis management by (1) introducing a spatial perspective that explains how organizations enact space to manage complexity. (2) We argue that the form of control that is exercised in refugee camps is largely a result of the spatial practices that are enacted by aid organizations and are thus contingent. This contributes to a more nuanced understanding of the way refugee camps can be managed and organized.

Introduction

Crises are an omnipresent phenomenon (Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017), sometimes even described as the "new normal" (Tierney, 2014: 238). They disrupt life-sustaining systems (Rosenthal, Charles, & 't Hart, 1989: 10) and threaten the social-political order ('t Hart, 1993: 39). Not being able to prevent and mitigate crises thus, has become a threat to the legitimacy of public authorities and private organizations (U. Beck & Holzer, 2007; Boin & Lodge, 2016; van der Vegt, Essens, Wahlström, & George, 2015). Crises are commonly conceptualized as concentrated space-time events (Boin & McConnell, 2007; Quarantelli & Dynes, 1977: 24; Weick, 1993; Williams et al., 2017) that confront organizations with high degrees of ambiguity and uncertainty (Wolbers, Boersma, & Groenewegen, 2018) due to complex relations between causes, effects, and means of resolution (Pearson & Clair, 1998: 60). Crisis management research so far has put an emphasis on the temporal facets of crises and their impact on a variety of management concepts such as decision-making (Kornberger, Leixnering, & Meyer, 2019), leadership (James, Wooten, & Dushek, 2011), coordination and collaboration (T. E. Beck & Plowman, 2014; Berthod, Grothe-Hammer, Müller-Seitz, Raab, & Sydow, 2017; Majchrzak, Jarvenpaa, & Hollingshead, 2007; Wolbers et al., 2018), or new business models as a means to organize crises relief fast (Kornberger, Leixnering, Meyer, & Höllerer, 2018; Williams & Shepherd, 2016).

In this paper, we shed light on the spatial aspects of crises and crisis management. As it is commonly accepted that space is more than just a context condition but actively shaping organizational action (Clegg & Kornberger, 2006b; Taylor & Spicer, 2007), we investigate how aid organizations purposefully enact spatial boundaries, move these boundaries, and enact social and spatial distances, which are constitutive elements of space (Weinfurtner & Seidl, 2019), to cope with the inherent complexity of crises situations. We conducted a contrasting ethnographic case study of two refugee camps in Uganda and Greece. Refugee camps are particularly well

suited because they are a "crucial spatial formation" (Ramadan, 2013: 65) that confront organizations with unique managerial challenges (Mintzberg, 2001) due to their significant spatial characteristics like remoteness (de la Chaux, Haugh, & Greenwood, 2018). Refugee camps are also prototypical for crises situations because organizations are responsible to supply refugees with essentials of life and shortages in supplies can threaten refugees' survival (Toole & Waldman, 1997). Our findings reveal that aid organizations enact different constellations of boundary-setting, movement and distance, which we label as *authoritarian*, *adaptive*, and *collaborative spacing*. We thereby, contribute to theory in two different ways. First, we show how organizations are able to deal with varying degrees of complexity by alternating between different forms of boundary-setting and movement. Thereby, they are able to either reduce complexity or create collaborative complexity (Schneider, Wickert, & Marti, 2016) in order to keep up with the dynamic expansion of crises situations. Second, we contrast the common conceptualization of refugee camps as a special form of a total institution (de la Chaux et al., 2018). Our findings show that aid organizations do not maintain institutional boundaries between them and their beneficiaries but instead alternate between different forms of boundary-setting and movement to mediate the social distance and the respective nature of power relations.

Introducing a Spatial Perspective into Crisis Management

Crises come in many forms and with many labels such as catastrophes, emergencies, or disasters ('t Hart, Rosenthal, & Kouzmin, 1993: 12; Boin & McConnell, 2007: 51). In fact, they represent unique managerial challenges (Drabek, 1985: 85) that are distinct from other more "run-of-the-mill" problems (James et al., 2011: 458) organizations usually encounter. Apart from being characterized as collectively experienced situations (Barton, 1970: 38; McFarlane & Norris, 2006: 4) that threaten high-priority values of a social system ('t Hart, 1993: 39; C. F. Hermann, 1963: 64) due to a "catastrophic depletion of resources" (Kaniasty & Norris, 1993:

396), crises are continuously being conceptualized as "concentrated space-time events" (Quarantelli & Dynes, 1977: 24). Crises either "cohere in time and space" (Weick, 1993: 633), or are "delineated in time and space" (Boin & McConnell, 2007: 51) or are "extended in space and time" (Williams et al., 2017: 737).

The Dominance of Time in Crisis Management

So far, research on crisis management has particularly focused on the temporal dimension of crises relief, since a core characteristic of crises is the temporal convergence of divergent problems (Kouzmin, 2008: 158). Moreover, information about crises "arrive at a pace […] that rapidly make any planned response too slow, disconnected, and inadequate for the task" (Majchrzak et al., 2007: 147) and thus, impedes communication among relevant actors (Wolbers, Groenewegen, Mollee, & Bím, 2013). Due to this inadequacy of information, crises managers confront a high degree of ambiguity with regard to the interplay between causes, effects, and means of resolution (Pearson & Clair, 1998: 60; B. A. Turner, 1976; Wolbers et al., 2018). Crisis management research therefore, has explored a variety of organization and management theory concepts in relation to temporal issues. To be more precise, time is taken into account from at least two perspectives.

First, crises are said to happen suddenly and unexpectedly (C. F. Hermann, 1963: 64), being a "low-probability, high-impact event" (Pearson & Clair, 1998: 66). Consequently, scholars explored how organizations deal with this unexpectedness in terms of sensemaking (Maitlis & Sonenshein, 2010; Weick, 1988) and sustaining organizational processes in the face of surprises (Bechky & Okhuysen, 2011; Bigley & Roberts, 2001; Danner-Schröder & Geiger, 2016).

Second, crisis response efforts are subject to tight time constraints due to high stakes and perceived urgency (James et al., 2011: 461; Kouzmin, 2008: 158). Therefore, research illuminated the role of leadership (James & Wooten, 2010), decision-making ('t Hart et al., 1993; Cosgrave, 1996; Kalkman, Kerstholt, & Roelofs, 2018; Kornberger et al., 2019; Rosenthal & Kouzmin,

1997), and fast coordination of expertise (Faraj & Xiao, 2006; Majchrzak et al., 2007; Wolbers et al., 2018). Moreover, the debate on resilience (Boin & van Eeten, 2013; Darkow, 2019; Kahn et al., 2018; Williams & Shepherd, 2016) implicitly bears a temporal notion by covering a continuum between "speedy recovery and timely adaption" (Boin, Comfort, & Demchak, 2010: 8).

Introducing a Spatial Perspective on Crisis Management

However, the spatial dimension of crisis management so far has been widely neglected. Only few scholars yet have addressed the fundamental role of physical space in crisis management: M. G. Hermann and Dayton (2009), and Boin and Lodge (2016) for example treat crises as a 'transboundary' phenomenon and thereby pinpoint to the physical expansion of crises as a distinct challenge that requires new ways of supranational collaboration of public administration authorities. Smirl (2008) elucidated the role of enacted spatial practices by humanitarian aid workers and their effect on the manifestation of institutional disparities between aid organizations and beneficiaries. The study of the Kenyan refugee camp Dadaab by de la Chaux et al. (2018) explores how 'respected spaces' and 'listening posts' can serve to maintain social stability despite these institutional trenches between beneficiaries and aid organizations.

Many studies on crisis management nevertheless, treat space as a context condition only, although the problems they address are inherently related to the spatial conditions crises are happening in. We illustrate this argument with five prominent crisis management studies: (1) T. E. Beck and Plowman (2014) investigate the concept of inter-organizational collaboration during the Columbia space shuttle response operations. Here, one of the main problems was that operations "covered 2.28 million acres" (T. E. Beck & Plowman, 2014: 1236) and therefore, required "up to 25,000 individuals from more than 130 federal, state, local, and volunteer agencies" (T. E. Beck & Plowman, 2014: 1234). (2) Kornberger et al. (2019) interrogate the logic of tact in decision-making during the European 'refugee crisis' in Vienna. In this case, decision-

making became difficult due to "an emerging polycentric and inter-sectoral collective of organizations" (Kornberger et al., 2019: 239) that needed to synchronize its activities to provide sustenance to the arriving refugees. With 'polycentric' Kornberger et al. (2019: 240) "allude to the multiple decision centers that coexisted in the collective, including the SanStab as decision-making arena in Vienna's town hall and the two "hotspots" at Hauptbahnhof and Westbahnhof".

(3) Williams and Shepherd (2016) study the emergence of business venturing in the aftermath of the Haiti earthquake: The core problem here was that

> "the physical destruction was widespread due to inadequate construction standards and a very poor population, which contributed to the destruction of more than 100,000 homes; 1,300 schools; 50 medicals centers; the State University of Haiti; and 15 out of Haiti's 17 government ministries, including the presidential palace" (Williams & Shepherd, 2016: 2072).

(4) Danner-Schröder and Geiger (2016) explore how organizations engage in stabilizing and flexibilizing routines in a crisis setting, where actors have to operate in a setting with "almost completely collapsed structures [like a] collapsed warehouse and a collapsed parking garage" (Danner-Schröder & Geiger, 2016: 636). (5) In the study of the Stockwell shooting by Cornelissen, Mantere, and Vaara (2014), a central problem to collective sensemaking were the "critical characteristics of the operation, [which included that] the individual officers were not physically co-present" (Cornelissen et al., 2014: 704).

As these examples illustrate, space plays a crucial role in the management of crises, but it is commonly treated as the context of the study and not the object of studies. Space is the context in which the crises take place and which puts constraints on and provides challenges for crisis management. However, thus far, the distinct role and contribution of spatial practices has not deserved much attention in crisis management literature. This is even more surprising, since in literature on space and management it is commonly assumed that the physical space "play[s] a major role in facilitating and constraining organizational action" (Elsbach & Pratt, 2007: 182).

Therefore, "space has [already] received considerable attention [in the management literature but…] the literature is highly fragmented" (Weinfurtner & Seidl, 2019: 1). This fragmentation may result from the different attributions or dimensions of space like 'physical', 'social', or 'mental' (Elsbach & Pratt, 2007; Go & Van Fenema, 2006; Taylor & Spicer, 2007). Although the literature on space is highly fragmented and diverse, certain aspects seem to be fundamental in the debate: Firstly, Lefebvre (1991) argued for a recursive understanding of the relationship between physical space and social interaction. "Space is not only a container waiting to be filled: It has its own materiality" (Clegg & Kornberger, 2006a: 144). In line with this conception, designing physical space regulates social relationships (Foucault, 1973; Hernes, 2004; Taylor & Spicer, 2007: 330). Secondly, both, the physical design as well as the intended social relations are subject to social practices of negotiation, appropriation, and territoriality (Brown, Lawrence, & Robinson, 2005; de Vaujany & Vaast, 2013), which are critical to the well-being of organizational members and organizational success (Chanlat, 2006). Thirdly, Weinfurtner and Seidl (2019: 1) sharpened our analytical understanding by proposing three underlying dimensions "that appear to be constitutive for the definition of space" (Weinfurtner & Seidl, 2019: 24), no matter whether it is physical, social, or mental: boundaries, distance and movement.

Boundaries can be of a physical as well as a social or mental nature and serve different purposes, such as regulating access to certain spaces, marking identity, or regulating interaction within a certain space (Weinfurtner & Seidl, 2019: 24). Moreover, a processual notion of the enactment of boundaries provides "significant potential for understanding novel forms of organizing, and for integrating agency, power dynamics, [and] materiality […] into the study of organizing" (Langley et al., 2019: 4). Boundaries also constitute *distances*, as "distance lies between positions within a given space or between different spaces" (Weinfurtner & Seidl, 2019: 4). As distances can be measured either objectively, using physical measuring units or subjectively, with regard to social, structural or economic distances (Weinfurtner & Seidl, 2019: 24), they

may impede or promote individual learning capacities (Lee, 2019) or enable knowledge flows between groups (Espinosa, Slaughter, Kraut, & Herbsleb, 2007; Tagliaventi & Mattarelli, 2006). Moreover, spaces provide the opportunity for *movement* (Weinfurtner & Seidl, 2019). Hereby, movement of space is an essential feature to initiate change (Kellogg, 2009). Movement can trigger specific organizational activities (Weinfurtner & Seidl, 2019: 14). As for example, the collective governance space of board members can only be assessed through managing information flows and brokering relationships and thereby moving boundaries between the board members (McNulty & Stewart, 2015).

To sum up, crisis management research so far has neglected the role of space in resolving crises, although there is sophisticated knowledge on the relationship between space and management. Hence, we seek to bridge this gap by exploring the role of space in crisis management. Hereby, we refer to space as material structure in the sense of a physical environment (Elsbach & Pratt, 2007) that can be characterized by three dimensions: boundaries, distance, and movement (Weinfurtner & Seidl, 2019: 26). Understanding how organizations enact those spatial dimensions in an effort to manage situations of crises is fundamental for better understanding the importance of space in crisis management that treats space as more than just context.

Methods

Due to the highly explorative nature of our study and following our interest in developing theory on managing space as an important means for crisis management, we chose an ethnographic, multiple case study design (Eisenhardt, Graebner, & Sonenshein, 2016; Van Maanen, 2011; Yin, 2018), which allows "to focus in-depth […] and to retain a holistic […] perspective […on] organizational and managerial processes" (Yin, 2018: 5). Our project unfolded over a period of 18 months with an iterative process of data collection and analysis (Harrison & Rouse, 2014:

1263; Suddaby, 2006: 637) that was inspired by ground-theory approaches (Charmaz, 2006; Strauss & Corbin, 1990).

Case Selection and Research Setting

For our study we chose refugee camps as a particularly significant context (Siggelkow, 2007), in which the spatial conditions have an undeniable impact on crisis management. By definition, a refugee is someone who "is outside the country of his nationality" (1951: Art.1 A.(2)) and thus, refugee camps are "a crucial spatial formation" (Ramadan, 2013: 65). Refugee camps provide a compelling context for crisis management, since they usually are the consequence of large population movements that are associated by high degrees of ambiguity with regard to the predictability of the movement (Mintzberg, 2001). Moreover, organizations have to operate under time constraints since refugees need to be provided with essential resources, otherwise their lives are at stake (Toole & Waldman, 1997). Providing these resources is challenging because refugee camps

> "are often located far from cities and other centers, and are clearly demarcated – often fenced – defining a distinction between the inside and the outside. Even in cases where camps are unfenced […] the distinction between the inside and outside persists" (S. Turner, 2016: 141).

Therefore, refugee camps can also be understood as a spatial practice. "Running a camp means running a municipality and more, including food distribution, sanitation, road construction and maintenance, housing, and health care" (Mintzberg, 2001: 760), which are ultimately spatial tasks that become even more challenging due to the typically remote locations of refugee camps (de la Chaux et al., 2018: 156). Finally, refugee camps build a relevant setting for our study, since the number of refugees living in camp-like situations has dramatically increased by 64,7 percent between 2015 to 2017, totaling in approximately 6.5 million refugees (UNHCR, 2016,

2018)[11]. Even in high-income countries of the global north we see an increasing 'campization', although it is the least-preferred form of accommodation (Kreichauf, 2018). Nevertheless, camp-like situations also occur in the aftermath of large weather catastrophes, when people need to be accommodated in emergency shelters, what makes our context even more persuasive. Advancing our understanding of how organizations manage the spatial challenges of camp-like situations may thus, provide precious insights to the debate on crisis management.

For our study, we chose two refugee camps named Oreokastro in Greece and Imvepi in Uganda. We applied a polar-type-sampling logic, which is

> "a particularly important theoretical sampling approach […] in which a researcher samples extreme cases in order to more easily observe contrasting patterns in the data. […] This sampling leads to very clear pattern recognition of the central constructs, relationships, and logic of the focal phenomenon" (Eisenhardt & Graebner, 2007: 27).

In line with our research interest, our sampling was oriented along distinct spatial criteria, such as the total size, the average space per inhabitant, and characteristics of the physical environment of the refugee camps. Table III. 1 lists the differences and similarities between the two camps.

[11] Based on own data analysis of the UNHCR Global Trends – Forced Displacement Reports 2015 and 2017

Criterion	Camp Oreokastro (Greece)	Imvepi (Uganda)
Differences		
Total Population	1,300 – 1,500	10,500 – 123,500
Total Size	Ca. 41,250 m²	Ca. 59 km²
Size per Family (5/6 persons)	1 tent (ca 18 m²)	900 – 2500 m²
Landscape	Factory	Bushland
Spatial Expansion	stable	expanding
Duration	provisional	permanent
Similarities		
Demography	homogenous	
Time of Existence (at beginning of data collection	< 4 weeks	

Table III. 1: Spatial Sampling Criteria

Oreokastro, Greece

Oreokastro was one of more than 40 refugee camps in Greece, founded as a response to the massive influx of mostly Syrian refugees to Europe during 2015 and 2016. It started its operations during the last week of May 2016 and was designed to host a maximum of 1.500 refugees on an area as large as roughly three soccer fields. The maximum capacity was reached within one week after opening. It was located in an industrial area in the outskirts of Thessaloniki in northern Greece. The area was a former leather factory that had been abandoned for several years. Hence, there was no electricity or piped water available on-site. Refugees were hosted in tents with a size of ca. 15 m² that were orderly aligned next to each other, mostly inside the former factory building. Each tent was supposed to host a family or up to six individuals. The area surrounding the factory building was divided into a plain-asphalted area and some wasteland covered with grass and bushes. An eye-witness report for the Council of Europe denounced that "there were obvious physical hazards such as open ditches, in unlit areas and waste material such as splintered wood and rusty metal" (CoE, 2016: 1). Moreover, the number of inhabitants did not meet international standards and "the buildings lacked light and ventilation and the tents were much too close to one another" (CoE, 2016: 2). Altogether, one can ascertain that the

camp management was confronted to a number of challenges that were directly associated to the physical properties of the location. Refugees had to be hosted within a very small, delimited area, where electricity, water, and sanitation were scarce. The high population density overwhelmed the shelter capacity and could cause social instability and security risks e.g. fast spread of fire at any time. Figure III. 1 shows the inside of the factory hall, where the majority of sleeping tents was accommodated.

Figure III. 1: Oreokastro Shelter Area

Imvepi, Uganda

The refugee camp Imvepi was founded in response to the South Sudanese Refugee Situation in February 2017. The influx of refugees into Uganda was a consequence of the South Sudanese civil war, which had escalated in August 2016. As a result, more than one million refugees had entered Uganda. The camp Imvepi is located in Uganda's northwestern district Yumbe, which belongs to the least developed and poorest regions on the planet. Around 63 percent of the host population are living below poverty line (Yumbe District Local Government, 2013) and only 2.2 percent have access to piped water. The whole region is only accessible via gravel or mud roads and is therefore extremely vulnerable to the local weather conditions, which include oppressive heat during dry season and heavy rains during rainy season. The camp Imvepi itself was built from scratch in remote scrubland. The nearest town-like settlement was about 45 minutes by SUV away. In order to start erecting the camp, the area had to be cleared from

bushes and roads had to be constructed. Figure III. 2 illustrates the widely spread nature of the camp.

Figure III. 2: Imvepi Settlement Area

The camp was divided into two areas, the reception center for registration purposes and the settlement areas where each family was assigned a plot of land with a size between 30x30 meters to 50x50 meters. The camp was expanding over a period of about nine months until it reached its maximum capacity of about 123.500 inhabitants in an area of 59km². The challenges that resulted from these physical-spatial conditions were related to the remoteness of the camp's location and the general scarcity of resources in the whole region. Thus, the provision of basic services like shelter, sanitation, food and water posed a major difficulty for camp management. Additionally, as the camp was expanding over a larger area that was difficult to assess, the issue of distributing goods and services gained significance.

Data Collection & Analysis

As our research interest is explorative in nature, we chose an ethnographic research design (Van Maanen, 2011; Watson, 2011). Data collection entailed ethnographic observations in both refugee camps, which were supplemented by interviews as part of our on-site visits and additional documentary records. Data analysis was an ongoing process using open coding to abstract theoretical themes within an emerging theoretical framework (Gioia, Corley, & Hamilton, 2012;

Harrison & Rouse, 2014; Strauss & Corbin, 1990). Hereby, our unit of analysis were spatial practices. Data collection and analysis were conducted iteratively over a period of 18 months between 2016 and 2017 (Harrison & Rouse, 2014: 1263; Suddaby, 2006: 637).

Data Collection

Ethnographic observations build the most insightful part of our data collection. They are an adequate method to investigate organizational processes because "it rigorously grounds and contextualizes the activities which the researcher observes and the accounts which [the researcher] receives from organizational members" (Watson, 2011: 202). In both refugee camps, we conducted two observation periods to understand changes in the design of spatial settings and management of spatial challenges over time. Figure III. 3 illustrates the temporal progression of our study.

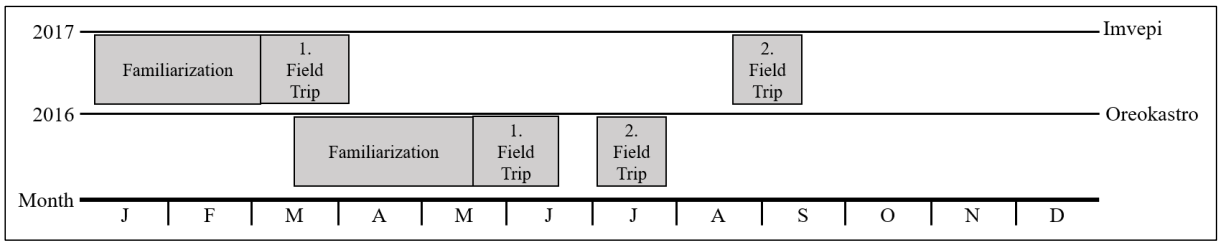

Figure III. 3: Data Collection Periods

In Oreokastro (Greece), the first author worked as a volunteer in a small volunteer organization named Team Humanity. Team Humanity started its operations with the opening of the camp at the end of May 2016 and thereby was one of the first organizations to work inside the camp. Its main services included the distribution of food, water and clothing as well as organizing medical care and community services. As a volunteer, the first author had the opportunity to dive deeply into the operations inside the camp, by spending most time of the day with providing services, sometimes until 3-4 a.m. in the morning, and participating in coordination meetings with other agencies. As a volunteer organization, Team Humanity relied on close collaboration

with other organizations inside the camp to coordinate its activities. Thus, the first author could observe a variety of activities and interrogate other aid workers about their way of managing upcoming challenges.

The Uganda Red Cross Society (URCS) granted us access to Imvepi Camp (Uganda). URCS as an auxiliary to the Ugandan government was mandated by the Ugandan Office of the Prime Minister (OPM) to provide a wide range of services inside the camp. Those services ranged from restoring family links, to hygiene promotion, to constructing sanitation facilities, to managing the registration process, and providing basic supplies to new arrivals. During both field visits both authors accompanied URCS managers throughout the day, shadowing them at all their activities, ranging from field assessments, to staff and coordination meetings, and office work. As it is typical for ethnographic studies, we gathered with the URCS management team before and after normal working hours, for joint activities which allowed for a deep embedding in the field and a thorough understanding of the managers' way of dealing with the challenges at hand (Whiteman & Cooper, 2011).

During all field trips, we took extensive notes on a note pad in situ, except for situations where taking notes would have been regarded as inappropriate. Field notes were usually extended and completed as soon as possible (Dittrich, Guérard, & Seidl, 2016: 681; Emerson, Fretz, & Shaw, 2011).

In addition, we conducted interviews in both camps, covering a wide range of people from different organizations across different hierarchical levels. Usually interviews were conducted whenever an opportunity opened up. Sometimes we had the chance to record them. In most of the cases, the main points had to be taken in notes and had to be complemented from memory afterwards. As it is typical for ethnographic work, we had dozens of informal encounters and conversations throughout the day that found their way into our field notes. Table III. 2 summarizes the amount of our collected data.

Source Camp	Observations (hours)	Interviews	Documents (pages)
Oreokastro (Greece)	208	18 (11 persons)	305
Imvepi (Uganda)	673	68 (41 persons)	2315
Total	**881**	**86**	**2620**

Table III. 2: Summary of Collected Data

Analytical Process

Our analytical process was inspired by the concept of abduction (Alvesson & Kärreman, 2007; Van Maanen, Sorensen, & Mitchell, 2007), which is an appropriate way of developing theory by interchangeably interpreting empirical data against the backdrop of existing theory. Ethnographic data is especially suitable for using abductive analysis (Alvesson & Kärreman, 2007: 1266), because it requires "sufficiently detailed, rich, and complex" (Van Maanen et al., 2007: 1149) data. Our data collection and data analysis was an alternating process that started with the beginning of the first author's field trip to Oreokastro, Greece. After returning home from every field trip, first impressions were intensively discussed with the second author. As a next step, the first author started to write very rich narrative accounts of each day based on his field notes and interview transcripts, including his personal impressions of certain situations and quotations from informal conversations (Goodall Jr., 2008; Langley, 1999: 695). A thorough examination of these accounts enabled us to develop a shared understanding of emergent themes (Whiteman & Cooper, 2011). Afterwards, the first author started a more detailed coding process of the narrative accounts and the interview transcripts (Strauss & Corbin, 1998: 101). With our 1st-order codes we stayed very close to our original data in order to keep the "informant-centric perspective" (Gioia et al., 2012: 18). Based on those first-order codes we used the framework provided by Weinfurtner and Seidl (2019), suggesting space as being constituted by boundaries, distance, and movement, to build more abstract "researcher-centric" (Gioia et al., 2012: 18) second-order themes. During this interpretive process, we recognized that, although our main focus was on aspects of physical space, organizations enacted different forms of social

distance, in terms of manifesting power relationships (Taylor & Spicer, 2007) between aid workers and refugees, which was regulated by the enactment of boundaries and movement and seemed to be related to the actual physical, objectively measurable distances inside the camps. Taking this into account, we recurred to the specific context of our data to interrogate how organizations enacted those boundaries, movement, and distance as a means to tackle the critical conditions they were facing and thereby contributing to crisis relief. Here we contrasted our findings from the two different camps, which led to the identification of three spatial practices that we termed *authoritative spacing*, *adaptive spacing*, and *collaborative spacing*. As a validation procedure we presented our preliminary findings at various feedback meetings with key informants, and also received feedback on excerpts of early drafts (Yin, 2018: 240).

Findings

Our analysis of two polar types of refugee camps aims to advance our understanding of managing space as a vital means for crisis management. Our interpretive process, illustrated in Figure III. 4, revealed three distinct spatial practices – *authoritarian spacing, adaptive spacing, and collaborative spacing* – that aid organizations enacted to cope with the critical conditions inside the two refugee camps. To enrich our findings, we will underpin our descriptions with photographic images to better illustrate the physical aspects of our research (see Boost, Schlenker, & Meier, 2018; de la Chaux et al., 2018: 164; Hindmarsh & Pilnick, 2007 for a comparable approach).

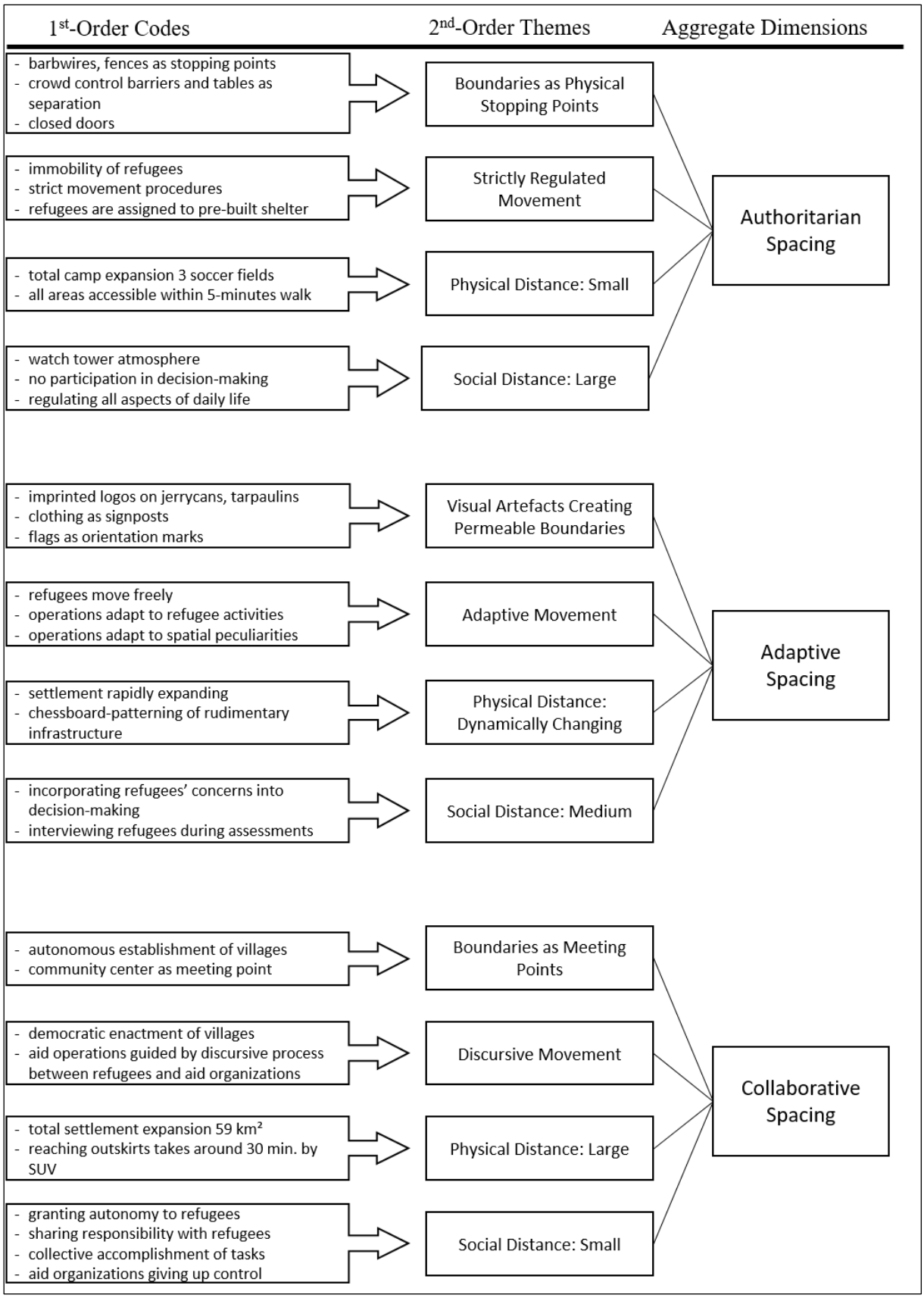

Figure III. 4: Analytical Process

Authoritarian Spacing

By authoritarian spacing we refer to the way aid organizations managed the refugee camp by enacting boundaries as *physical stopping* points and thereby, strictly regulating the movement of refugees inside the camp. Thereby, they manifested large social distance, although the physical distance between organizations and refugees was very small. Consequently, aid organizations enacted a very dominant – authoritarian – form of control. We observed authoritarian spacing at Oreokastro, where one of the major challenges for aid organizations was supplying many refugees on a small area.

Boundaries as Physical Stopping Points

The enactment of physical boundaries was omnipresent in Oreokastro. Organizations used physical barriers to demarcate the boundaries of the camp itself but also to separate different functional areas inside the camp and maintain a clear, physical separation between aid organizations and refugees. Here, we will describe three vivid examples of enacting physical boundaries as stopping points at Oreokastro.

Figure III. 5: Oreokastro Fenced Police Office

Figure III. 6: Oreokastro Aid Organizations' Office

First, the whole camp was surrounded by walls and fences and could only be entered through a gate. Police officers were supervising the gate and granted access. Aid workers had to show their passports and to register on a list before entering the camp.

Second, a 2,5m high fence with a triple-strand barbwire on top surrounded the police office (see Figure III. 5). Passing the fence was only possible through a small door. In case refugees wanted to approach the police officers to report or request something, they had to stop and wait at the small door until they were recognized by the officers who would then come out of their office, listening to the refugees' matter and then decide whether they would let them in, let them wait at the door, or ask them to leave. As one officer explained:

> "You know, once they are in your office, just one thing after another pops up. But there are also other families who have needs. This way we can filter what's important and what's not and then decide how to go on."

Third, inside the camp aid organizations used physical boundaries to separate their offices and areas of operation like distribution points from the public camp space. Like Figure III. 6 shows, the office of the leading aid agency had established her office at the first floor of the factory building, which was only accessible through a small ladder. Throughout our observations, the office door tended to be closed most of the time. Altogether, the set-up of the offices with the ladder and the closed door built a physical boundary that regulated the accessibility of aid organization officials.

Strictly Regulated Movement

Enacting boundaries as stopping points and thereby creating separated and segregated spaces had a significant impact on the movement inside the camp in two ways.

First, the movement of the aid organizations was very limited. Organizations usually operated only within the areas that were separated by physical boundaries. Thus, for example, medical service was only provided at the health clinic, or food distribution was only provided in a separated area behind a line of tables.

Second, aid organizations engaged in regulating the movement of refugees by actively adapting the spatial setup to their demands. Two examples illustrate this form of regulating refugee's movement:

Figure III. 7: Oreokastro Military-Style Camp Set-Up

First, the aid organizations provided shelter and sanitation facilities. Figure III. 7 shows one of the two factory halls, where refugees were accommodated. Aid organizations set up the tents in straight lines, what created the impression of a military-style camp. Each tent was supposed to host on average six persons. The tents were numbered and new arrivals were assigned to a specific tent by the camp authorities. Hereby, the movement of refugees was strictly regulated. If one understands shelter as the central place for the individual, where many of the daily activities like sleeping, cooking, and social gathering take place and acknowledges the constrained mobility (no cars, no bicycles etc.), then setting up the tents without further consultation and

assigning refugees to a specific tent, significantly regulates the refugees' movement. As one aid worker admitted:

> "I know, it's not always fair because there are differences of course. Some tents are at a cooler place than the others are, some are closer to the sanitation facilities and so on. Not all of them stay at their assigned tent, we know that. But at least, we have a rough picture of the situation. We need to keep oversight here in order to coordinate our efforts, otherwise it's just chaos."

A second example for regulating the movement of refugees was the distribution of food three times a day, which is illustrated by the following short vignette:

> *Around noon we arrived at Oreokastro, we parked the car next to the loading platform to unload some kitchen utensils that we had picked up at an external storage. At the other end of the loading platform, I saw some soldiers and a couple of members from another aid organization who were setting up some tables and crowd control barriers. I approached one of the aid workers and asked her what the tables and barriers are for. "We're preparing the food distribution for lunch", she explained to me. I (first author) asked her about how it is going to work to distribute lunch to roughly 1.300 people. She explained to me that they would set up a row of tables in a corner of the platform, so it would only be accessible from one side and that would be the side where the truck would unload the meals. This way they could store the food behind the tables and prepare the distribution without anyone interfering. Refugees would have to wait in line and pass along the lanes that we build with the barriers. Then, in front of the table, they would show their ID-card, receive their meal and leave in a circular direction so they do not interfere with those who are still waiting. I asked her about how long it is going to take until everyone would have received his meal. "Well, now we are down to two to three hours", she replied. "In the beginning, it was four to five hours, because we did not use the barriers. But that was just a huge chaos because they all wanted their food at once. Sometimes we had not even finished with the breakfast distribution and people were coming for lunch already. Now that we use those lanes to guide them, it works much faster", she added.*

As this illustration exemplifies, aid organizations used physical barriers, here tables and crowd control barriers, to separate the distribution area from the common camp space and regulated the movement of refugees in a circular way to distribute the food efficiently.

Physical Distance: Small

The physical distances at Oreokastro were quite small also compared to other refugee camps. The aid organizations engaged in distributing all functional areas like the clinic, the police office, or sanitary facilities around the center of the camp, which was the accommodation areas, so that each point could be reached within a five minutes-walk (see Figure III. 8). However, on first sight short distances could have been regarded as a good thing since they allowed for a fast provision of services. But as on aid worker told in an interview:

> "This place is too dense; see usually we would need more space between the tents. Like now, if you have noisy neighbors, you're lost. And there is no space to escape. Together with the heat people get mad, so we have to be careful that the situation does not escalate."

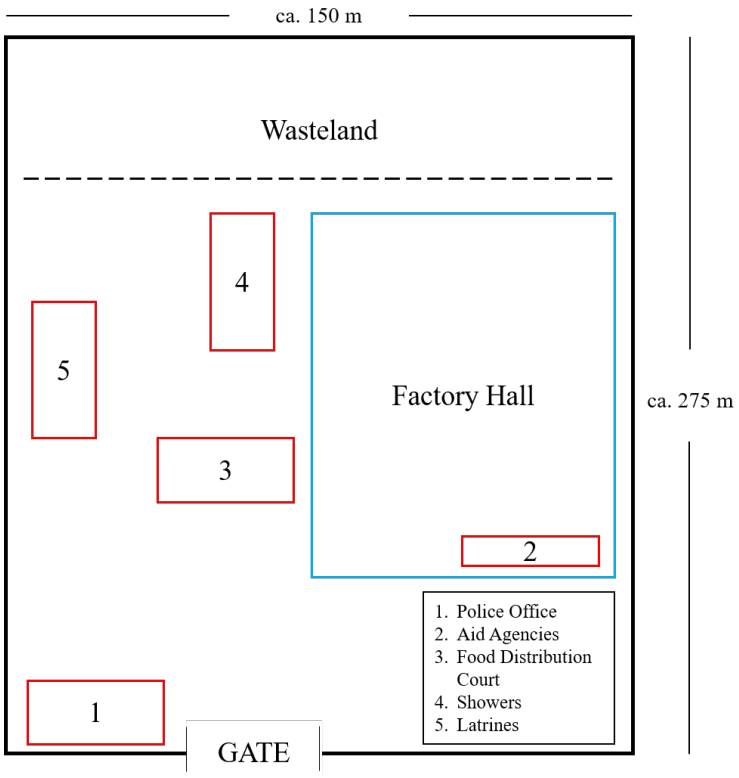

Figure III. 8: Oreokastro Site Map

Social Distance: Large

On the other hand, enacting physical boundaries as stopping points and strictly regulating movement inside the camp created a large social distance between the aid organizations and the refugees. The authoritative control of the aid organizations was visible for example by their decision to host their offices on the first floor instead of the ground floor like shown in Figure III. 7. From the first floor, large areas of the camp could be seen and surveilled. Thereby, they created a 'watchtower' atmosphere. In an interview, a refugee said:

> "Every time you need to walk up that stairs, knock on the door, just to tell them about a problem. I mean, we are educated people, you know. But now, I feel like a beggar."

Moreover, social distance was not only expressed by the way aid organizations interacted with the refugees but also in the way, they enacted space. Due to the physical limitations of the camp space, space was transformed to fit what the aid organizations regarded as a demand of the refugees. Two examples illustrate this creation of social distance:

First, although the floor inside the factory hall was paved with concrete, organizations had decided to erect the tents inside the hall and fix them by expensively drilling tent stakes into the ground. Thereby, they confronted refugees with a fixed setup that they had to accommodate to.

Second, after refugees had looted a storage space and disrupted the doors and walls, the camp authorities gathered for a coordination meeting to decide on how to deal with the situation. The meeting took place in one of the offices on the first floor. Due to the destruction, the place had no longer been used as a storage since then. Representatives of all organizations that were operating at Oreokastro participated in the meeting and the following conversation developed:

Team Humanity: "So we still need to decide what should happen to the storage place. Since people broke into it and destroyed the wall we can no longer use it as a storage."

Aid Organization 1: "Maybe we could create a recreational area or a playground for children"

Team Humanity: "What about a school? Teachers have complained that the current situation is not good because it is too loud and the children cannot concentrate. We have two larger tents that we could erect there"

Military: "I think priority one should be a school. I guess we should all have a look at the place, come back together, and decide what´s best to do with that space. Then we can see how to make it fit."

As both examples show, organizations prioritized their aims, like shelter construction or a school, over the physical characteristics of the space at hand. Space became just a mean to fulfill these aims. Here space was accommodated to the specific needs or functions; organizations were dominating over space by imprinting their own understanding how the space should be shaped in order to fulfill its designated function. Since refugees were not incorporated into those decision-making processes, organizations enacted an authoritarian kind of control not only about the space but also over the refugees. By presetting the key features for the refugees' living conditions without involving them into the decision-making process, they sustained a high social distance between camp authorities and refugees.

Adaptive Spacing

The second spatial practice we observed was adaptive spacing. We observed aid organizations enacting adaptive spacing during the first expansion period of the Imvepi settlement in Uganda. At that time, the camp hosted around 30.000 refugees and welcomed around 5.000 new arrivals on a daily basis. Hence, the physical space of the camp expanded very dynamically. Refugees were leaving the reception center and resettled to the settlement areas surrounding the reception center. By enacting adaptive spacing, aid organizations were able to provide an efficient supply for refugees despite the challenging spatial conditions, swiftly incorporating the newly settled

areas into their mode of operating. During this phase organizations enacted boundaries as *permeable membranes* using visual artefacts, which facilitated coordination with other aid agencies and refugees. Thereby, they allowed for a flexible movement of their own operations but also of the refugees. Based on thorough assessments of the spatial conditions and the refugees' needs aid organizations adapted their operations to the spatial conditions instead of transforming space at all costs like we had seen in Oreokastro. Since the complexity of the situation was increasing due to the dynamic expansion of the camp, adaptive spacing allowed to deal with this complexity by decreasing the social distance between the refugees and aid organizations.

Visual Artefacts Creating Permeable Boundaries

Opposed to physical barriers, aid organizations at Imvepi used visual artefacts as a means of visualizing boundaries. Instead of physical barriers, organizations imprinted their logos on all kinds of artefacts from jerry cans to latrines, to cars and clothing.

Figure III. 9: Imvepi URCS Flag

Figure III. 10: Imvepi Imprinted Bathing Shelter

Figure III. 11: Imvepi URCS Volunteers

Figure III. 9, III. 10, and III. 11 illustrate different examples of visual artefacts used by aid organizations at Imvepi. Those artefacts were used to visibly demarcate areas of responsibility within the camp. Moreover, using materials that were anyway distributed to the refugees, like jerry cans or tarpaulins, was a rather simple and effortless way of communicating not only the spatial expansion of an organization's activities but also its area of expertise. Like one URCS manager told us:

> "We assist them [the refugees] with the latrine construction. Then, others pass by and recognize us because of the visibility. So, they ask us to help them too. Sometimes it's difficult to explain to them that it will take some time until we can start with them but at least they know that we are on the ground."

Or during an inter-agency coordination meeting, one aid worker of another aid organization said: "I have seen URCS is on the ground in zone 2, building latrines. How is your progress? Do you think you could expand your activities? We have a shortage in zone 3."

Visual boundaries were thus used to visualize zones of operation and expertise. But these boundaries could easily be transgressed since they were not marking precise stopping points. Rather, by using visual artifacts to enact boundaries, these boundaries were like membranes: On the one hand, they were flexible, could be passed both ways without actually noticing. On the hand, the visual boundaries created a space of responsibility: Aid organizations were visualizing that they were in charge of a particular area of the settlement.

Adaptive Movement

As a consequence of this visual way of boundary setting, movement inside Imvepi was adaptive in two ways.

First, organizations were able to set out their areas of operations much more flexible. By using visual artefacts, it was easy to move the operational boundaries and thereby, adapt to both, the actual characteristics of the physical space and the changing demands of the refugees. Both were often either unknown before actually starting operations or changed unexpectedly during the course of operations. Consequently, URCS managers conducted field assessments before starting with their operations, which often resulted in moving the operations elsewhere, where URCS thought they could make a more meaningful contribution. One example of this movement happened during the assessment of an area where URCS was supposed to construct latrines. An emergency response unit used an SUV to arrive at the designated area. They stopped at several points, left the car, and assessed the physical characteristics of the soil, like shown in Figure III. 12. The team also interviewed some of the refugees to get detailed information on the situation and potential needs (Figure III. 13). After a few stops, the team leader uttered his concerns:

> "I am not sure if we should really start working here. Seems like they have the basic infrastructure, so it's no emergency here. I think we can make a more meaningful contribution in another zone"

The sanitation engineer agreed: "I think you are right, there are 5.000 new arrivals each day and they lack behind in preparing the new settlement zones because the soil is so rocky. Maybe we should look for an area where the soil is better, so we can get something done here quickly." Finally, the team agreed to move their operations into an area, where their contribution was considered to be of more value.

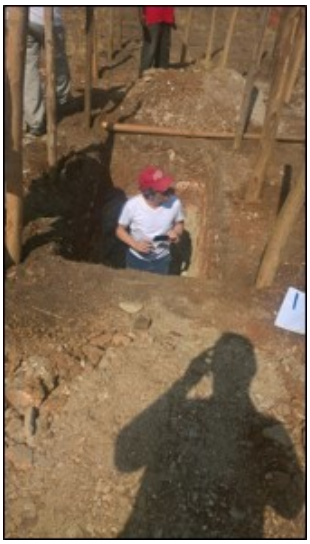

Figure III. 12: Imvepi Physical Assessment

Figure III. 13: Imvepi Interviewing Refugees

Figure III. 14: Imvepi Mobile Food Distribution

Another example of this adaptive movement of operations was a mobile form of distributing resources, as shown in Figure III. 14. While at Oreokastro we had seen aid organizations offering their services at a distinct area, thereby fencing refugees' movement, at Imvepi we observed

aid organizations choosing what was called a mobile way of distributing. One member of an aid organization that was responsible for providing food explained:

> "At the moment the camp is expanding so fast, it would take too much time to figure out where to build the distribution points. So we just load the stuff on a truck and go where we are needed."

This adaptive form of movement enabled organizations to flexibly enlarge their spatial scope of activities and to cope with the high degree of uncertainty that was prevailing with regard to the influx of refugees and the internal movement of refugees.

The second form of adaptive movement that resulted from using visual artefacts instead of physical barriers was the movement of refugees. Visual artefacts made boundaries much more permeable and thus, enabled refugees to move freely inside the camp, without further regulation as seen in Oreokastro. Visual artefacts were used as signposts that guided but did not determine movement as it was the case with physical barriers. Refugees and members of other aid organizations could easily enter and leave different zones without requiring access. Moreover, refugees could settle almost wherever they wanted. As the ERU team leader explained:

> "Imagine you would be in that situation, wouldn't you wanna be close to your relatives? Wouldn't you wanna settle on fertile land with access to water? The camp is so huge, we can't control where they go and it would make no sense to try it."

This autonomy did not come without consequences. Facing a rapidly increasing refugee population, it was of utmost importance to build sufficient infrastructure and to quickly cater for the refugees' needs. Constructing this infrastructure like roads, shelter, and sanitary facilities had already been challenging due to the hilly terrain with rocky soil and steep valleys. The free movement of refugees inside the settlement significantly increased the already high degree of

uncertainty with regard to deciding on where to commence infrastructure construction. Aid organizations coped with that uncertainty by adapting their operations to the refugees' demands and construct the infrastructure at the space where refugees had actually settled.

Physical Distance: Dynamically Changing

Compared to the small distances observed at Oreokastro, at Imvepi, during the first expansion phase, the physical distances were changing dynamically. Since the basic infrastructure in the beginning was built up at the reception center, distances became larger the more refugees were moving to the settlement areas. Altogether, the camp reached an expansion of ca. 25 km² within the first two months of its existence. That soon became a problem for two reasons: First, refugees' mobility was limited. Since no motorized vehicles were available, they had to pass distance solely by walking what would have resulted in several hours walks. Second, due to the increasing number of inhabitants, facilities at the reception center would have been overwhelmed soon. Hence, the aid organizations engaged in bridging those distances by applying a chessboard-like pattern of infrastructure, e.g. tanks with drinking water, latrines, and bathing shelters, shown in Figure III. 15. For example, communal latrines were constructed every 100 meters so that the maximum distance to reach the next latrine was about 50 meters. The same applied to water tanks, here the distance was larger but the maximum distance to next water tank was a 10- to 15-minute walk.

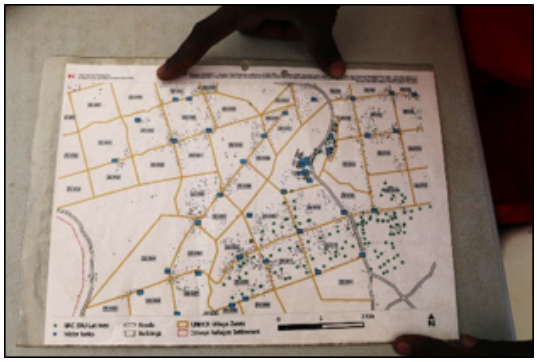

Figure III. 15: Imvepi Chessboard-Patterning of Infrastructure

Thereby, aid organizations were able to reduce the distances refugees needed to overcome to receive at least minimum supplies, what otherwise would have caused challenges for successfully sustaining the refugees.

Social Distance: Medium

Comparing to the very large social distance at Oreokastro, we experienced the social distance between the aid organizations and the refugees at Imvepi during this first expansion phase to be medium.

As a result of permeable boundaries and adaptive movement, refugees were able to take autonomous decisions on the spatial set-up when it came to housing. Refugees could freely move inside and outside the settlement and put up their shelter, wherever they preferred. In addition, the visible boundaries that marked areas of responsibility made it easy for refugees to get in touch with aid organizations due to their physically close presence in the settlements. Refugees could just walk into the tents and approach aid workers without any barriers to cross. The voice of refugees thus found quick integration into the decision making of aid organizations, as the following excerpt exemplifies: The following conversation that took place at an interagency coordination meeting illustrates how the refugees' concerns found their way into aid organization's decision-making:

Aid Organization 1: "So we have currently detected 86 persons with specific needs (PSNs), their families want items to build latrines."
Camp Manager: "So what is the problem with the latrines?"
Aid Organization 1: "They are not there, they want digging kits, while they are waiting."
Camp Manager: "I think you know the process, can you explain it to us?"
Aid Organization 2: "Well, our findings from Bidi Bidi (another refugee camp) show, they should be waiting until we have built community latrines in that area. Then we can identify whom to give the digging kits."
Camp Manager: "Makes sense, than we can cover a larger area more quickly. On the other hand, community latrines are probably difficult to access for

PSNs. Maybe we can have a package, so every family with a PSN gets a shelter and a latrine." (looks at aid worker from aid organization 3)

Aid Organization 3: "We are currently building PSN shelters just right next to the main roads in zone 2, that´s the easiest way. Many refugees settle there, because it is still close to the reception center. I think we can add a latrine there, the ground is soft there. Just give us the numbers."

Here, the individual needs of PSN were acknowledged since they were unable to constrict latrines and shelter themselves. Refugees in good physical conditions were supplied with community latrines and construction materials that enabled them to build their own latrines and shelter where they would like to have it set up. This way, aid organizations achieved to incorporate both, the requirement to cover quickly a large area of the settlement and to incorporate the spatial needs of refugees and PSNs. In contrast to authoritarian spacing, adaptive spacing was characterized by incorporating not only aid organizations' perspective into the spatial arrangement but instead also taking the spatial characteristics of the settlement and the refugees' spatial needs into account. Thus, organizations did not transform space to fit their requirements at all costs but they adapted their operations to the prevalent spatial conditions. Hereby, creating a medium social distance between them and the refugees was helpful to direct the aid organizations' efforts in a meaningful way and cope with the increased complexity that resulted from the large geographical expansion, the rapidly increasing number of refugees and the free movement of refugees within the settlement.

Collaborative Spacing

During our second field trip to Imvepi, the camp had reached its maximum geographical expansion. The settlement covered an area of approximately 59 km² and hosted around 123,500 refugees. This large geographic expansion and the high number of people created some serious challenges for the aid organizations. They had to ensure a reliable provision of services (food,

water, hygiene promotion) in a large, sometimes difficult to access area, where the infrastructure, in particular roads, was still poor. Due to the large territory that aid organizations needed to cover reliably with their services, adaptive spacing was not considered an option any more as Damian a URCS officer explained to us:

> "So UNHCR asked us to distribute soap among the refugees who live in the settlement areas now. That was really a challenge for us because some areas of the camp are still not accessible by trucks and we have more than 100.000 refugees living here. We cannot go plot by plot, that would take us ages."

The quantities and distances simply exceeded the capacity and availability of trucks and staff. However, in order to ensure the provision of services, aid organizations enacted, what we labeled, *collaborative spacing* that was characterized by boundaries as meeting points, discursive movement and low social distance. By enacting collaborative spacing aid organizations granted a high degree auf autonomy and responsibility to the refugees, what allowed aid agencies to deal with the inherent complexity of a refugee camp of this geographical size. Collaborative spacing meant that aid organizations adapted to the spatial conditions of the settlement by handing the coverage and control of large geographical areas to the discretion of the refugees themselves.

Boundaries as Meeting Points

During our second field trip, we could observe two different forms of enacting boundaries: The first form of enacting boundaries was done by the refugees in forming what URCS and its partners referred to as 'villages' inside the settlement. During the expansion phase, refugees had been moving around inside the settlement areas and gathered in groups with their relatives, friends from their hometowns, or other tribe members to settle down at a favorable location. From this free movement of refugees resulted an emerging spatial structure that was later on referred to as 'villages'. Villages were thus groups of shelters that had been erected by the

refugees in close physical proximity and that hosted refugees who had actually decided to live together in close quarters. These villages were thus very different in terms of size, ranging from 15 inhabitants up to more than 100. Since these villages followed an emerging order, they were not demarcated by any visible signs, fences or anything alike. For outsiders like us, it was almost impossible to identify the boundaries of a village; i.e. seeing where one village ended and the next one started. Oftentimes, they seemed to be merging into each other. However, URCS that had been on the ground for several months had assigned numbers to each village and actually had drawn a map where the villages where located on. URCS used this emerging spatial structure of villages for coordinating their own activities within the settlement. As Kilian, the URCS team leader for sanitation at Imvepi, explained to us, while showing us a map of the villages:

> "At the moment we assist the people at village 36 with constructing household latrines. So when we are finished there, we will talk to the other agencies and see which village is next."

So, whilst the villages followed an emerging spatial structure created by the refugees', URCS used this structure in their own operation to meet the demand of the refugees.

The second form of boundaries was set by URCS and its partner agencies. Across the whole settlement area, they had erected community centers and distribution areas like shown in Figure III. 16 and III. 17. Those were clearly demarcated areas that aid organizations either used to facilitate the distribution of monthly food rations or as a forum to inform and discuss upcoming activities with the refugees. The spaces were physical spaces, for example buildings that had been erected as town halls or fenced areas on the ground that were demarcated with ropes and banderols. Unlike at Oreokastro, access to those areas was not regulated by aid agencies. Instead, those physical spaces served as a meeting point between aid agencies and the refugee communities, which is pretty similar to the idea of 'respected spaces' identified by de la Chaux

et al. (2018). Here, both parties – the refugees and the aid organizations – met at a specific space that was controlled by both parties and acted upon a commonly accepted set of rules. As one official explained after one of those meetings where refugees were asked to elect representatives to speak on their behalf:

> "Of course we know that they are not familiar with those democratic structures. That's why it is chaotic sometimes and we need to explain it again and again. On the other hand, they also know that, at least inside these four walls, they need to stick to those rules so that we have some common ground for collaboration."

Here, the boundaries created a physical meeting point, where both parties could gather and discuss emerging needs.

Figure III. 16: Imvepi Community Center

Figure III. 17: Imvepi Food Distribution Point

Discursive Movement

As described above, when Imvepi had reached its maximum expansion, aid organizations were facing tremendous challenges in terms of keeping up with the construction of infrastructure.

Although a rudimentary supply existed, aid agencies needed to deploy huge efforts in developing the settlement. Deciding on where to move operations during this time was largely the result of discursive processes as the following vignette illustrates:

For an afternoon, we accompanied Kilian, the URCS team leader for sanitation at Imvepi. He had invited us to join him at a community meeting that was organized by another aid agency. Already from a distance, we could hear joyful music that was coming from a speaker that was standing outside of the community center. People were slowly gathering outside and inside the building. Some women were even dancing outside. Kilian explained: "That's the easiest way to get everyone together, people just like good music. After 20 minutes people sat down inside the building, some were standing outside and listening because the walls were open (see Figure III. 16). After a short introduction by a representative of the agency that had arranged the meeting, Kilian was introduced. He started by explaining how URCS' process for household latrine construction would usually work. Then he asked the community whether there were any households that were in need of additional latrines. Some of the refugees raised their hands and asked for immediate assistance. Then a spokesperson that had been elected joined the conversation and proposed that it would be best to start with those families and then to proceed with the other households. Kilian agreed and asked the community whether they were okay with this solution and asked them to raise their hands if they were. The majority raised their hands and supported their approval by murmuring. Then Kilian asked the spokesperson to identify those families that would receive a latrine first and where there huts were, so that he could coordinate the beginning of construction works with his team. On our way back to the base camp, we asked Kilian why URCS was spending so much effort instead of just starting construction with the nearest household. He replied: "It is important that we are together with them. Because we need their assistance. Otherwise, it would take us ages to get things done. So, it is better to involve them into the process. They know their village better than we do. We would have to do a new assessment before we could start."

These observations reveal that boundaries enacted as meeting points and the emergent spatial structure of villages enabled a discursive, collaborative movement of the operations of the aid organizations and the refugees alike. Since boundaries were invisible and refugees had control over their own spaces, aid organizations were able to move their provision of services easily within the settlement without the need to cover too extended areas themselves. Being guided by the emergent spatial structure and the input of the refugees where their support was most needed enabled URCS to limit their own operations to relatively small spatial areas whilst at

the same time being able to cater for large geographical spaces at the same time. Without the need to be present at all places at once within the large settlement, URCS could still cater for the need of a large space by being guided by the discursive processes of moving where help was most needed.

Physical Distance: Large

Physical distances at Imvepi had become very large as the settlement area covered around 59 km². Even by SUV, reaching some points could last more than 30 minutes due to the fact that the terrain was very hilly, the roads were in bad conditions and sometimes were flooded or had been just flushed away by heavy rains. For URCS it became thus more and more difficult to keep oversight over upcoming needs and the progress of operations. As Matthew, an URCS accountant for Non-Food Items told us in an interview:

> "Sometimes, I am worried because we have just not the capacity to survey the entire camp. So we just hope for the best and try to detect upcoming needs as fast as possible by being on the ground."

Social Distance: Small

By enacting boundaries as meeting points URCS was actively lowering the social distance between refugees and themselves. Treating refugees as partners and not just as beneficiaries that needed their support but granting them autonomy in their own geographical spaces resulted in significantly reducing the social distance and granting autonomy to refugees. One example where this became visible was the monthly food distribution process.

Figure III. 18: Imvepi Food Distribution 1

Figure III. 19: Imvepi Food Distribution 2

Figure III. 20: Imvepi Food Distribution 3

Distributing food was very challenging because 123,500 refugees who were spread across the settlement needed to be supplied. Hereby, handing out each ratio individually was not an option because it would have taken too long. The aid organizations thus decided to make use of the emergent spatial structure of the villages: The aid organization in charge of providing food decided to erect a couple of decentralized distribution points and assigned each village to one of these points. Once a month, refugees could receive their designated ratio of food, including

oil, maize meal, and salt at those distribution points. However, because of the large number of refugees living in the villages, the distribution point would have been overcrowded if all refugees would have come and wait in line to receive their ration at once. In order to address this problem, the aid organization initiated a community-based process amongst the refugees. Damian, a URCS manager explained the process to us as follows:

> "So down there underneath the trees (Figure III. 18) the refugees of each village have to elect a spokesman; he is responsible for collecting the ID-cards of all inhabitants of the village. Then the spokesman and one representative of each family have to queue up in front of the distribution point. The spokesman has to hand over the ID-cards and the aid worker will calculate the total amount of food items for the whole village. Then the spokesman and family representatives are allowed to enter the distribution area and receive their food ratio (Figure III. 19). After receiving the items, they carry them to an assembly point next to the distribution area (Figure III. 20) and split up the ratios for each of the family themselves."

By exerting this form of distribution, aid organizations were able to distribute food ratios to a large number of people and thereby cover a large territory, whilst at the same time only being physically present at very small and few distribution points. This also contributed to low social distance because aid organizations granted autonomy to the refugee communities letting themselves electing their spokespersons and shared responsibility for a fair distribution of food ratios on their own terrain. This is remarkable since aid organizations could not control for a proper distribution once the refugees had left the physical space of the distribution point. The control of the aid organization was limited to the space of the distribution point; beyond this space, refugees were exercising their own control guided by the emergent village structure and the democratic processes these enabled. Controlling only limited space and giving away control to the refugees thus enabled the aid organization to significantly reduce the spatial complexity of the large expansion of the settlement, whilst on the other hand increasing the uncertainty by giving away control over large areas of the settlement.

Discussion

Our research aims at promoting a spatial perspective on crisis management. As the findings from our study of two different refugees camps have shown, aid organizations not only act in space but enact space in different forms in order to coordinate their relief efforts. By enacting boundaries, movement, and distances aid organizations are able to tackle varying challenges, to overcome spatial constrains and use space as a managerial resource instead. Thereby, we contribute to theory in two different ways: First, if crises are conceptualized as ambiguous and uncertain situations due to a complex interplay between causes, effects, and means of resolution (Pearson & Clair, 1998: 60; Wolbers et al., 2018), enacting different spatial practices can be a way of managing this complexity. Our findings show, that organizations purposefully chose whether to treat space as a resource that can be transformed according to one's demands, or to adapt one's operations to the spatial conditions at hand. Second, by enacting space, aid organizations are able to alternate between different forms of enacting boundaries and movement and thereby mediate the social distance between them and the refugees. This adds a new perspective to conventional theorizing on refugee camps as a unique organizational form that has been equated with a total institution (de la Chaux et al., 2018; Goffman, 1961) and spaces of social distortion and exclusion (Agier, 2011: 18).

Managing Space as Complexity Coping

In the aftermath of adverse events aid organizations are confronted with high degrees of ambiguity and uncertainty (B. A. Turner, 1976; Wolbers et al., 2018). Information about the situation arrive at different paces and different levels of quality and reliability (Majchrzak et al., 2007) and responsibilities may be unclear as new crises-related tasks unexpectedly pop up (Quarantelli, 1988). Moreover, leaders come under pressure due to stressful working conditions and emotional overload (James et al., 2011). Altogether crises situations present themselves as

highly complex with unclear relationships between causes, effects and means of resolution (Pearson & Clair, 1998: 60). As our findings have shown, managing space enables organizations to actively increase or decrease the level of complexity they are dealing with, depending on how space is enacted.

If we take a social systems perspective (Luhmann, 1995; Schreyögg & Sydow, 2010; Seidl & Becker, 2006) complexity derives from the number of elements and their potential number of interrelations that constitute a social system or its environment respectively (Luhmann, 2005; Scott, 1992). Hereby, social systems are organizations that are constituted by creating a complexity differential between their internal sphere and their environment. Thus, the organization's internal complexity is always lower than the complexity of its environment (Schreyögg & Sydow, 2010: 1253). Consequently, organizations need to actively choose which elements of their environment are relevant and need to be addressed by creating internal structures and process (Luhmann, 1995). On the other hand, this implies that organizations can never completely assess their entire environment. Though, whenever the number of relevant aspects in the environment increases, organizations are said to increase their requisite variety (Ashby, 1958) by either creating new internal structures and processes to address increased complexity or by collaborating with other organizations (Schneider et al., 2016). In crises situations complexity for the focal organization for example increases as the number of beneficiaries, other aid agencies, or the spatial territory of operations expands.

Our findings show that enacting boundaries, movement and distance are different ways for managing high degrees of complexity. First, by enacting an authoritarian form of spacing, organizations are dramatically reducing the level of complexity they are dealing with: By enacting boundaries as physical stopping points, which allow only for a regulated and very limited movement of refugees, aid organizations significantly reduce the complexity they are dealing with.

Moreover, maintaining a high social distance facilitates decision-making because aid organizations can decide according to their own preferences, which again reduces complexity. Keeping these boundaries stable and not allowing for movements enables to transform the space to the needs of the organization, thereby reducing complexity again. Authoritarian spacing thus presents a way of significantly reducing the complexity organizations are confronted with. This might be helpful in early stages of crisis management when the risk of getting overwhelmed is very high (Danner-Schröder & Geiger, 2016). However, reducing complexity through authoritarian spacing also bears the risk of getting out of touch with the complex environment that dynamically evolves. Unexpected events might pop-up (Bechky & Okhuysen, 2011), hitting the organization unprepared due to the low level of internal complexity which renders adaptation difficult (Ashby, 1958). As Ashby (1958) has convincingly argued, complexity can only be handled by complexity, or as Tsoukas (2017) has put it: organizations need to complexify themselves to deal with complex problems. Reducing complexity through authoritarian spacing thus might help in initial stages of crisis management, but become a problem in later stages. This was also visible in our case study since refugees started complaining about supply shortages, the inflexible housing conditions and so on. However, as our findings have also shown, by enacting adaptive and collaborative spacing organizations significantly increased the level of complexity they had to deal with and also increased their internal complexity. By setting visual boundaries, aid organizations significantly facilitated their potential to collaborate with other partners in the field and remained open to inputs from refugees. This openness to collaboration by collaborative spacing significantly increased the level of collaborative complexity (Schneider et al., 2016) and thus enabled organizations to cover broader spatial areas and an extended range of service provisions. This makes organizations more adaptable to respond to novel, emerging challenges and for dealing with increased levels of complexity. However, as

the boundaries become more permeable and the spatial constraints become more relaxed, organizations run the risk of losing control and thus, not being able to adequately address high levels of complexities. If the spatial boundaries dissolve, organizations lose their constitutive identity (Schreyögg & Sydow, 2010) and consequently cannot effectively deliver services any longer. Seen this way, adaptive and collaborative spacing exposes organizations to the risk of losing control over their operations and becoming unable to effectively coordinate their efforts. Managing space thus becomes a sort of balancing act for aid organizations: On the one hand, whilst authoritarian enactment of space helps to significantly reduce complexity very fast to a management level, it bears the risk of becoming too closed and stable. On the other hand, collaborative enactment of space helps in addressing high levels of complexity and being flexible and adaptive in the approach, whilst risking to lose control over the operation. Balancing this relationship between authoritarian and collaborative ways of enacting space is thus a fundamental concern of aid organizations.

Managing Space as a Mode of Governance in Refugee Camps

In the literature, refugee camps have been compared to total institutions (de la Chaux et al., 2018; Goffman, 1961). Total institutions are characterized by the circumstance that one party (usually a minority) exercises totalitarian control over another party by regulating all aspects of life (Goffman, 1961). In order to maintain social stability and facilitate the execution of control total institutions may create a strong shared identity regulating the behavior of inmates, or in the case of prisons use coercion (de la Chaux et al., 2018). Due to the unique governance regimes inside refugee camps consisting of locally appointed public authorities and international aid organizations that lack democratic legitimation (S. Turner, 2005: 312) but regulate almost all aspects of daily live maintaining social stability is a serious challenge (de la Chaux et al., 2018). Refugee camps are thus believed to become places of social distortion and exclusion (Agier, 2011: 18) because aid organizations usually aim to treat everyone equally, which in fact

"disrupts any pre-given social order" (S. Turner, 2016: 144) and reduces refugees "to bare, biological, temporary survival" (S. Turner, 2016: 143). Consequently, refugees are deprived of their ability to raise political concerns (S. Turner, 2010). According to de la Chaux et al. (2018), aid organizations maintain social stability by creating respected spaces, where the different institutional worlds of the refugees and of the aid organizations agree to act upon a commonly accepted set of rules while still maintaining the institutional worlds separately from each other. Our findings, however, have the potential to put these findings into perspective. As we would argue, whether refugee camps are actually total institutions or if they are also open for more collaborative, democratic forms of governance is a result of the enactment of space. As we have shown, the spatial set-up of an authoritarian way of control that treats space as a constraint that all stakeholders have to comply to is not without alternatives. Quite the contrary, aid organizations are able to alternate between different forms of boundary setting and movement, thereby mediating the social distance between the two institutional worlds of refugees and aid organizations. Enacting boundaries as meeting points creates spaces to bridge institutional differences and creates a collaborative atmosphere that can facilitate crises relief efforts. As a result, in case space is enacted in a collaborative way, refugee camps are not necessarily total institutions but can be controlled and managed in a more collaborative and equal way. Seen this way, whether refugee camps are actually total institutions reinforcing large social distances or not, significantly depends upon how space is actually enacted and crafted. As enacted space regulates power relations and thus social distances (Taylor & Spicer, 2007), collaborative spacing allows for a change of power relations and alter social distances.

Enacting collaborative spacing thus enables aid organizations to increase their impact and to cover large geographical distances by giving away control to refugee populations.

Conclusion

The goal of our study was to shed light on the spatial dimension of crisis management. Since research on crisis management so far has focused on elucidating the relationship between the temporal facets of crises and their impact on management concepts, introducing a spatial perspective may advance our understanding of managing crises successfully. Our contrasting ethnographic case study of two refugee camps has shown how aid organizations engage in enacting authoritarian, adaptive, and collaborative spatial practices by setting different forms of boundaries and regulating distances and movement. We have shown that aid organizations treat space not only as a context condition but actually enact space as a resource that can contribute to crisis relief efforts. By alternating between different spatial practices, organizations are able to manage complexity by either reducing the complexity they need to deal with, or by purposefully creating collaborative complexity to keep up with crises as they are emerging. Moreover, we add a new perspective on refugee camps as an organizational form. Actively mediating the social distance between aid organizations and refugees by enacting different spatial practices may enable organizations to bridge institutional trenches and thereby ease relief efforts. Given the increasing number of refugee movements worldwide, our study thus may offer valuable insights for public authorities and aid organizations on deciding where to build refugee settlements and on how to use space as a resource in their efforts to establish and sustain refugee settlements. We thereby, open up potentially fruitful avenues for further research into the spatial dimension of crisis management, e.g. how organizations collaborate across boundaries or the role of space in other types of crises such as weather catastrophes.

References

't Hart, P. (1993). Symbols, rituals and power: The lost dimensions of crisis management. *Journal of Contingencies and Crisis Management, 1*(1), 36-50.

't Hart, P., Rosenthal, U., & Kouzmin, A. (1993). Crisis decision making: The centralization thesis revisited. *Administration & Society, 25*(1), 12-45.

Agier, M. (2011). *Managing the undesirables*. Cambridge: Polity.

Alvesson, M., & Kärreman, D. (2007). Constructing mystery: Empirical matters in theory development. *Academy of Management Review, 32*(4), 1265-1281.

Ashby, W. R. (1958). Requisite variety and implications for control of complex systems. *Cybernetica, 1*(2), 83-99.

Barton, A. H. (1970). *Communities in disaster: A sociological analysis of collective stress situations*. Garden City, NY: Doubleday Inc.

Bechky, B. A., & Okhuysen, G. A. (2011). Expecting the unexpected? How SWAT officers and film crews handle surprises. *Academy of Management Journal, 54*(2), 239-261. https://doi.org/10.5465/AMJ.2011.60263060

Beck, T. E., & Plowman, D. A. (2014). Temporary, emergent interorganizational collaboration in unexpected circumstances: A study of the columbia space shuttle response effort. *Organization Science, 25*(4), 1234-1252. https://doi.org/10.1287/orsc.2013.0888

Beck, U., & Holzer, B. (2007). Organizations in world risk society. In C. M. Pearson, C. Roux-Dufort, & J. A. Clair (Eds.), *International Handbook of Organizational Crisis Management* (pp. 3-21). Thousand Oaks, California: Sage Publications, Inc.

Berthod, O., Grothe-Hammer, M., Müller-Seitz, G., Raab, J., & Sydow, J. (2017). From high-reliability organizations to high-reliability networks: The dynamics of network governance in the face of emergency. *Journal of Public Administration Research and Theory, 27*(2), 352-371. https://doi.org/10.1093/jopart/muw050

Bigley, G. A., & Roberts, K. H. (2001). The incident command system: High-reliability organizing for complex and volatile task environments. *Academy of Management Journal, 44*(6), 1281-1299. https://doi.org/10.2307/3069401

Boin, A., Comfort, L. K., & Demchak, C. C. (2010). The rise of resilience. In A. Boin, L. K. Comfort, & C. C. Demchak (Eds.), *Designing resilience: Preparing for extreme events* (pp. 1-12). Pittsburgh: University of Pittsburgh Press.

Boin, A., & Lodge, M. (2016). Designing resilient institutions for transboundary crisis management: A time for public administration. *Public Administration, 94*(2), 289-298.

Boin, A., & McConnell, A. (2007). Preparing for critical infrastructure breakdowns: The limits of crisis management and the need for resilience. *Journal of Contingencies and Crisis Management, 15*(1), 50-59. https://doi.org/10.1111/j.1468-5973.2007.00504.x

Boin, A., & van Eeten, M. J. G. (2013). The resilient organization. *Public Management Review, 15*(3), 429-445. https://doi.org/10.1080/14719037.2013.769856

Boost, M., Schlenker, K., & Meier, L. (2018). Mehrwerte einer kombinierten qualitativen Bild- und Textanalyse zur Bedeutung sozialräumlicher Strukturen für resiliente Haushaltspraktiken. *Europa Regional, 25.2017*(1), 27-37.

Brown, G., Lawrence, T. B., & Robinson, S. L. (2005). Territoriality in organizations. *Academy of Management Review, 30*(3), 577-594.

Chanlat, J.-F. (2006). Space, organisation and management thinking: A socio-historical perspective. In S. R. Clegg & M. Kornberger (Eds.), *Space, organizations and management theory* (pp. 17-43). Copenhagen: Liber and Copenhagen Business School Press.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London - Thousand Oaks - New Dehli: Sage Publications Inc.

Clegg, S. R., & Kornberger, M. (2006a). Organising space. In S. R. Clegg & M. Kornberger (Eds.), *Space, organizations and management theory* (pp. 143-162). Copenhagen: Liber and Copenhagen Business School Press.

Clegg, S. R., & Kornberger, M. (Eds.). (2006b). *Space, organizations and management theory*. Copenhagen: Liber and Copenhagen Business School Press.

CoE. (2016). *Refugees at risk in Greece*. Retrieved from http://www.assembly.coe.int/nw/xml/XRef/Xref-DocDetails-EN.asp?FileID=22827&lang=EN

Cornelissen, J. P., Mantere, S., & Vaara, E. (2014). The contraction of meaning: The combined effect of communication, emotions, and materiality on sensemaking in the Stockwell Shooting. *Journal of Management Studies, 51*(5), 699-736. https://doi.org/10.1111/joms.12073

Cosgrave, J. (1996). Decision making in emergencies. *Disaster Prevention and Management: An International Journal, 5*(4), 28-35.

Danner-Schröder, A., & Geiger, D. (2016). Unravelling the motor of patterning work: Toward an understanding of the micro-level dynamics of standardization and flexibility. *Organization Science, 27*(3), 633-658.

Darkow, P. M. (2019). Beyond "bouncing back": Towards an integral, capability-based understanding of organizational resilience. *Journal of Contingencies and Crisis Management, 27*(2), 145-156. https://doi.org/10.1111/1468-5973.12246

de la Chaux, M., Haugh, H., & Greenwood, R. (2018). Organizing refugee camps: "Respected Space" and "Listening Posts". *Academy of Management Discoveries, 4*(2), 155-179. https://doi.org/10.5465/amd.2017.0040

de Vaujany, F.-X., & Vaast, E. (2013). If these walls could talk: The mutual construction of organizational space and legitimacy. *Organization Science, 25*(3), 713-731.

Dittrich, K., Guérard, S., & Seidl, D. (2016). Talking about routines: The role of reflective talk in routine change. *Organization Science, 27*(3), 678-697.

Drabek, T. E. (1985). Managing the emergency response. *Public Administration Review, 45*, 85-92.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal, 50*(1), 25-32.

Eisenhardt, K. M., Graebner, M. E., & Sonenshein, S. (2016). Grand challenges and inductive methods: Rigor without rigor mortis. *Academy of Management Journal, 59*(4), 1113-1123. https://doi.org/10.5465/amj.2016.4004

Elsbach, K. D., & Pratt, M. G. (2007). The physical environment in organizations. *The Academy of Management Annals, 1*(1), 181-224.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes* (2nd ed. Vol. 2). Chicago - London: The University of Chicago Press.

Espinosa, J. A., Slaughter, S. A., Kraut, R. E., & Herbsleb, J. D. (2007). Team knowledge and coordination in geographically distributed software development. *Journal of Management Information Systems, 24*(1), 135-169.

Faraj, S., & Xiao, Y. (2006). Coordination in fast-response organizations. *Management Science, 52*(8), 1155-1169. https://doi.org/10.1287/mnsc.1060.0526

Foucault, M. (1973). *The order of things: An archaeology of the human sciences*. New York: Random House.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods, 16*(1), 15-31.

Go, F., & Van Fenema, P. C. (2006). Moving bodies and connecting minds in space: a matter of mind over matter. In S. R. Clegg & M. Kornberger (Eds.), *Space, organizations and managment theory* (pp. 64-78). Copenhagen: Liber & Copenhagen Business School Press.

Goffman, E. (1961). On the characteristics of total institutions. In *Asylums: Essayson the social situation of mental patients and other inmates* (pp. 1-124). Garden City, NY: Anchor Books.

Goodall Jr., H. L. (2008). *Writing qualitative inquiry: Selves, stories, and the new politics of academic success*. Walnut Creek: Left Coast Press Inc.

Government, Y. D. L. (2013). *Yumbe District Statistical Abstract 2012/2013*. Retrieved from http://www.ubos.org/onlinefiles/uploads/ubos/2009_HLG_%20Abstract_printed/CIS+UPLOADS/Higher%20Local%20Government%20Statistical%20Abstracts_2014/Yumbe.pdf

Harrison, S. H., & Rouse, E. D. (2014). Let's dance! Elastic coordination in creative group work: A qualitative study of modern dancers. *Academy of Management Journal, 57*(5), 1256-1283.

Hermann, C. F. (1963). Some consequences of crisis which limit the viability of organizations. *Administrative Science Quarterly, 8*(1), 61-82.

Hermann, M. G., & Dayton, B. W. (2009). Transboundary crises through the eyes of policymakers: Sense making and crisis management. *Journal of Contingencies and Crisis Management, 17*(4), 233-241.

Hernes, T. (2004). *The spatial construction of organization* (Vol. 12). Amsterdam / Philadelphia: John Benjamins Publishing.

Hindmarsh, J., & Pilnick, A. (2007). Knowing bodies at work: Embodiment and ephemeral teamwork in anaesthesia. *Organization Studies, 28*(9), 1395-1416. https://doi.org/10.1177/0170840607068258

James, E. H., & Wooten, L. P. (2010). *Leading under pressure: From surviving to thriving before, during, and after a crisis*. Abingdon: Routledge.

James, E. H., Wooten, L. P., & Dushek, K. (2011). Crisis management: Informing a new leadership research agenda. *Academy of Management Annals, 5*(1), 455-493.

Kahn, W. A., Barton, M. A., Fisher, C. M., Heaphy, E. D., Reid, E. M., & Rouse, E. D. (2018). The geography of strain: Organizational resilience as a function of intergroup relations. *Academy of Management Review, 43*(3), 509-529. https://doi.org/10.5465/amr.2016.0004

Kalkman, J. P., Kerstholt, J. H., & Roelofs, M. (2018). Crisis response team decision-making as a bureau-political process. *Journal of Contingencies and Crisis Management, 26*(4), 480-490. https://doi.org/10.1111/1468-5973.12243

Kaniasty, K., & Norris, F. H. (1993). A test of the social support deterioration model in the context of natural disaster. *Journal of Personality and Social Psychology, 64*(3), 395.

Kellogg, K. C. (2009). Operating room: Relational spaces and microinstitutional change in surgery. *American Journal of Sociology, 115*(3), 657-711.

Kornberger, M., Leixnering, S., & Meyer, R. E. (2019). The logic of tact: How decisions happen in situations of crisis. *Organization Studies, 40*(2), 239-266. https://doi.org/10.1177/0170840618814573

Kornberger, M., Leixnering, S., Meyer, R. E., & Höllerer, M. A. (2018). Rethinking the sharing economy: The nature and organization of sharing in the 2015 refugee crisis. *Academy of Management Discoveries, 4*(3), 314-335. https://doi.org/10.5465/amd.2016.0138

Kouzmin, A. (2008). Crisis management in crisis? *Administrative Theory & Praxis, 30*(2), 155-183.

Kreichauf, R. (2018). From forced migration to forced arrival: the campization of refugee accommodation in European cities. *Comparative Migration Studies, 6*(1), 7.

Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review, 24*(4), 691-710.

Langley, A., Lindberg, K., Mørk, B. E., Nicolini, D., Raviola, E., & Walter, L. (2019). Boundary work among groups, occupations and organizations: From cartography to process. *Academy of Management Annals, in press*. https://doi.org/10.5465/annals.2017.0089

Lee, S. (2019). Learning-by-moving: Can reconfiguring spatial proximity between organizational members promote individual-level exploration? *Organization Science, in press*. https://doi.org/10.1287/orsc.2019.1291

Lefebvre, H. (1991). *The production of space* (D. Nicholson-Smith, Trans. Vol. 142). Oxford UK & Cambridge USA: Blackwell.

Luhmann, N. (1995). *Social systems*. Stanford: Stanford University Press.

Luhmann, N. (2005). Komplexität. In N. Luhmann (Ed.), *Soziologische Aufklärung 2: Aufsätze zur Theorie der Gesellschaft* (5 ed., pp. 255-276). Wiesbaden: VS Verlag für Sozialwissenschaften.

Maitlis, S., & Sonenshein, S. (2010). Sensemaking in crisis and change: Inspiration and insights from Weick (1988). *Journal of Management Studies, 47*(3), 551-580.

Majchrzak, A., Jarvenpaa, S. L., & Hollingshead, A. B. (2007). Coordinating expertise among emergent groups responding to disasters. *Organization Science, 18*(1), 147-161. https://doi.org/10.1287/orsc.1060.0228

McFarlane, A. C., & Norris, F. H. (2006). Definitions and concepts in disaster research. In F. H. Norris, S. Galea, M. J. Friedman, & P. J. Watson (Eds.), *Methods for disaster mental health research* (pp. 3-19). New York: The Guilford Press.

McNulty, T., & Stewart, A. (2015). Developing the governance space: A study of the role and potential of the company secretary in and around the board of directors. *Organization Studies, 36*(4), 513-535.

Mintzberg, H. (2001). Managing exceptionally. *Organization Science, 12*(6), 759-771.

Pearson, C. M., & Clair, J. A. (1998). Reframing crisis management. *Academy of Management Review, 23*(1), 59-76.

Quarantelli, E. L. (1988). Disaster crisis management: A summary of research findings. *Journal of Management Studies, 25*(4), 373-385. https://doi.org/10.1111/j.1467-6486.1988.tb00043.x

Quarantelli, E. L., & Dynes, R. R. (1977). Response to social crisis and disaster. *Annual Review of Sociology, 3*(1), 23-49.

Ramadan, A. (2013). Spatialising the refugee camp. *Transactions of the Institute of British Geographers, 38*(1), 65-77.

Rosenthal, U., Charles, M. T., & 't Hart, P. (1989). *Coping with crises: The management of disasters, riots, and terrorism*. Springfield: Charles C Thomas Pub Ltd.

Rosenthal, U., & Kouzmin, A. (1997). Crises and crisis management: toward comprehensive government decision making. *Journal of Public Administration Research and Theory, 7*(2), 277-304. https://doi.org/10.1093/oxfordjournals.jpart.a024349

Schneider, A., Wickert, C., & Marti, E. (2016). Reducing complexity by creating complexity: A systems theory perspective on how organizations respond to their environments. *Journal of Management Studies*, 1-27. https://doi.org/10.1111/joms.12206

Schreyögg, G., & Sydow, J. (2010). Crossroads: Organizing for fluidity? Dilemmas of new organizational forms. *Organization Science, 21*(6), 1251-1262.

Scott, W. R. (1992). *Organizations: Rational, natural, and open systems*. Englewood Cliffs, NJ: Prentice-Hall.

Seidl, D., & Becker, K. H. (2006). Organizations as distinction generating and processing systems: Niklas Luhmann's contribution to organization studies. *Organization, 13*(1), 9-35. https://doi.org/10.1177/1350508406059635

Siggelkow, N. (2007). Persuasion with case studies. *Academy of Management Journal, 50*(1), 20-24.

Smirl, L. (2008). Building the other, constructing ourselves: Spatial dimensions of international humanitarian response. *International Political Sociology, 2*(3), 236-253.

Strauss, A. L., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Thousand Oaks: Sage Publications.

Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research techniques*. Thousand Oaks: Sage Publications.

Suddaby, R. (2006). From the editors: What grounded theory is not. *Academy of Management Journal, 49*(4), 633-642.

Tagliaventi, M. R., & Mattarelli, E. (2006). The role of networks of practice, value sharing, and operational proximity in knowledge flows between professional groups. *Human Relations, 59*(3), 291-319.

Taylor, S., & Spicer, A. (2007). Time for space: A narrative review of research on organizational spaces. *International Journal of Management Reviews, 9*(4), 325-346.

Tierney, K. (2014). *The social roots of risk: Producing disasters, promoting resilience*. Stanford: Stanford University Press.

Toole, M. J., & Waldman, R. J. (1997). The public health aspects of complex emergencies and refugee situations. *Annual review of public health, 18*(1), 283-312. https://doi.org/10.1146/annurev.publhealth.18.1.283

Tsoukas, H. (2017). Don't simplify, complexify: From disjunctive to conjunctive theorizing in organization and management studies. *Journal of Management Studies, 54*(2), 132-153. https://doi.org/10.1111/joms.12219

Turner, B. A. (1976). The organizational and interorganizational development of disasters. *Administrative Science Quarterly*, 378-397.

Turner, S. (2005). Suspended spaces—Contesting sovereignties in a refugee camp. In T. B. Hansen & F. Stepputat (Eds.), *Sovereign bodies: Citizens, migrants, and states in the postcolonial world* (pp. 312-332). Princeton, NJ: Princeton University Press.

Turner, S. (2010). *Politics of innocence: Hutu identity, conflict, and camp life* (Vol. 30). New York - Oxford: Berghahn Books.

Turner, S. (2016). What is a refugee camp? Explorations of the limits and effects of the camp. *Journal of Refugee Studies, 29*(2), 139-148. https://doi.org/10.1093/jrs/fev024

UN. (1951). *Convention relating to the Status of Refugees*.

UNHCR. (2016). *Global Trends - Forced Displacement in 2015*. Retrieved from

UNHCR. (2018). *Global Trends - Forced Displacement in 2017*. Retrieved from https://www.unhcr.org/5b27be547.pdf

van der Vegt, G. S., Essens, P., Wahlström, M., & George, G. (2015). Managing risk and resilience. *Academy of Management Journal, 58*, 971-980. https://doi.org/10.5465/amj.2015.4004

Van Maanen, J. (2011). Ethnography as work: Some rules of engagement. *Journal of Management Studies, 48*(1), 218-234.

Van Maanen, J., Sorensen, J. B., & Mitchell, T. R. (2007). The interplay between theory and method. *Academy of Management Review, 32*(4), 1145-1154-1154.

Watson, T. J. (2011). Ethnography, reality, and truth: The vital need for studies of 'how things work' in organizations and management. *Journal of Management Studies, 48*(1), 202-217.

Weick, K. E. (1988). Enacted sensemaking in crisis situations. *Journal of Management Studies, 25*(4), 305-317.

Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly, 38*(4), 628-652. https://doi.org/10.2307/2393339

Weinfurtner, T., & Seidl, D. (2019). Towards a spatial perspective: An integrative review of research on organisational space. *Scandinavian Journal of Management, 35*(2), 1-30. https://doi.org/10.1016/j.scaman.2018.02.003

Whiteman, G., & Cooper, W. H. (2011). Ecological sensemaking. *Academy of Management Journal, 54*(5), 889-911. https://doi.org/10.5465/amj.2008.0843

Williams, T. A., Gruber, D. A., Sutcliffe, K. M., Shepherd, D. A., & Zhao, E. Y. (2017). Organizational response to adversity: Fusing crisis management and resilience research streams. *Academy of Management Annals, 11*(2), 733-769. https://doi.org/10.5465/annals.2015.0134

Williams, T. A., & Shepherd, D. A. (2016). Building resilience or providing sustenance: Different paths of emergent ventures in the aftermath of the Haiti earthquake. *Academy of Management Journal, 59*(6), 2069-2102.

Wolbers, J., Boersma, K., & Groenewegen, P. (2018). Introducing a fragmentation perspective on coordination in crisis management. *Organization Studies, 39*(11), 1521-1546. https://doi.org/10.1177/0170840617717095

Wolbers, J., Groenewegen, P., Mollee, J., & Bím, J. (2013). Incorporating time dynamics in the analysis of social networks in emergency management. *Journal of Homeland Security and Emergency Management, 10*(2), 555-585.

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Thousand Oaks, CA: Sage Publications, Inc.

Appendix

Table of Contents

A.1 Dissertation Summary

Managing adversity is an unescapable reality for modern organizations and is even considered as "the new normal". Adverse events threaten organization's viability and, moreover, can disrupt life-sustaining systems, and the socio-political order.

We see an increasing array of adverse events whose consequences confront public authorities, non-profit organizations, and private enterprises with crises that entail unique managerial problems. Apart from the immediate threats to people's livelihoods, those adverse events cause dramatic economic losses. In addition to weather-related or geophysical adversity, we see a wide range of 'man-made' disasters adding on to the number of adverse events: political instabilities, armed conflicts, or industrial accidents. Altogether, the adverse impacts of disasters represent a significant threat to all parts of society and their sustainable development. Consequently, acknowledging adversity as a significant menace to society and the necessity to improve disaster management capabilities has led the United Nations to initiate a number of global policies on a variety of issues such as Disaster Risk Reduction, Climate Change, or Forced Displacement. Even the Sustainable Development Goals (SDGs) explicitly target the reduction of exposure and vulnerabilities to weather catastrophes and economic or social shocks. Consequently, they demand the strengthening of resilience and adaptive capacity to deal with those shocks in case they cannot be avoided.

This cumulative dissertation, titled **"Mastering Adversity: Resilient Organizing in the Age of Disruption"**, therefore, extends and consolidates our understanding of how organizations cope with adverse situations. How do organizations manage ambiguously and discontinuously evolving settings in an effort to overcome potential threats to organizational performance and the livelihoods of the affected communities? In particular, the three essays in this thesis empirically and conceptually interrogate three distinct concepts – resilience, coordination, and space – that, as this dissertation has outlined, are crucial to the successful management of adversity.

Hereby, the empirical part of this dissertation draws on a qualitative, ethnographic case study of two organizations, which operate in Greek and Ugandan refugee camps.

Essay I on organizational resilience contrasts current conceptualizations of resilience and challenges their underlying assumptions. Consequently, it develops an integral, capability-based understanding of resilience, which promotes the importance of being able to enact different practices at different points in time before, during, and after an adverse event has become manifest. Only if organizations are able to recognize which practice is appropriate at which time and to alternate between these practices accordingly they can be regarded as resilient. Resilience is thus, a conceptual umbrella that covers a wide range of different management concepts.

Essay II on coordination in turbulent settings argues against the widely spread practice-based notion of coordination that overemphasizes the meaning of actors' activities while neglecting the role of tasks in coordination. Our study shows how organizations are able to avoid getting overwhelmed in a turbulent setting by enacting, what we labeled: *coordinative autonomy*. Organizations purposefully enact disruptions to their coordinative efforts themselves and restore these by either stabilizing or modifying the task at hand.

Essay III on organizational space points to the so far neglected role of space in crises management research. We explore how organizations enact boundaries, distances and movement differently and thereby create either authoritarian, adaptive, or collaborative space. Thereby, we show how organizations manage complexity by either reducing or creating collaborative complexity. Moreover, we add a new perspective to the established notion of refugee camps as being a total institution and places of social distortion. We show that by enacting different forms of space, organizations can mediate social distance between them and the refugees and thereby bridge institutional trenches.

A.2 Zusammenfassung der Dissertation

Die Konfrontation mit Krisen ist für moderne Organisationen eine unausweichliche Realität, die gelegentlich bereits als „neue Normalität“ bezeichnet wird. Krisen gefährden nicht nur die Existenz der fokalen Organisation, sondern darüber hinaus auch Menschenleben und die Legitimation politisch-administrativer Systeme. Krisenereignisse haben in den vergangenen zwei Dekaden nicht nur in ihrer Häufigkeit, sondern auch in ihren Auswirkungen erheblich zugenommen. Eine Entwicklung, die die nachhaltige Prosperität aller gesellschaftlichen Schichten gefährdet. Angesichts dieses Phänomens wurden in den vergangenen Jahren zahlreiche politische Rahmenwerke verabschiedet, die übereinstimmend darauf abzielen bestehende Schwächen zu verringern und die Fähigkeit mit Krisen umzugehen zu stärken. Hierbei kommt sowohl privaten als auch öffentlichen und Non-Profit Organisationen eine besondere Rolle zu, da sie mit ihren Ressourcen einen erheblichen Beitrag zur Stärkung der Widerstandsfähigkeit gegen als auch zur Bewältigung von Krisen leisten können.

Die vorliegende Dissertation mit dem Titel **„Mastering Adversity: Resilient Organizing in the Age of Disruption“** untersucht daher sowohl konzeptionell als auch empirisch die Frage, wie Organisationen Krisen bewältigen. Wie bewältigen sie die Krisen inhärente Ambiguität und unvorhergesehene, oftmals zeitkritische Entwicklungen, angesichts derer potentiell bedrohlichen Konsequenzen im Falle eines Scheiterns zu erwarten sind?

Zur Beantwortung dieser Fragen wird im Rahmen dieser Dissertation im Einzelnen auf drei unterschiedliche theoretische Managementkonzepte eingegangen, denen, wie im Folgenden herausgearbeitet wird, eine exponierte Bedeutung bei der Bewältigung von Krisen zukommt: Resilienz, Koordination und Raum. Dabei baut der empirische Teil dieser Arbeit auf einer vergleichenden, ethnographischen Fallstudie zweier Organisationen, die jeweils in griechischen und ugandischen Flüchtlingslagern aktiv sind, auf.

Der erste Essay dieser Dissertation widmet sich konzeptionell der Resilienzfähigkeit von Organisationen und stellt dabei die unterschiedlichen, bestehenden Konzeptionen des Begriffs gegenüber und in Frage. Darüber hinaus wird hier ein theoretisches Model entwickelt, welches die Fähigkeit unterschiedliche organisationale Praktiken zu jeweils unterschiedlichen Zeitpunkten vor, während und nach der Krise auszuüben und zwischen diesen zu wechseln als entscheidend für die Resilienz einer Organisation herausarbeitet.

Der zweite Essay stellt zunächst fest, dass durch das vorherrschende Verständnis von Koordination als Resultat organisationaler Praktiken der Fokus aktueller Forschung auf der Beobachtung von durch Akteure ausgeübten Aktivitäten liegt. Dabei wird jedoch die Bedeutung der Aufgaben, auf deren Erfüllung die Koordination eigentlich abzielt, vernachlässigt. Insbesondere in Krisensituationen ist jedoch die Aufgabe oftmals nicht eindeutig definierbar und zudem permanenten Änderungen im Verlauf der Krise unterworfen. Um eine Überwältigung durch die überbordende Komplexität in herausfordernden Situationen zu vermeiden, praktizieren Organisationen, so das Ergebnis unserer Studie, ein Art koordinativer Autonomie, die sie dazu befähigt, die jeweils relevanten Aufgaben zu identifizieren und im Verlauf der Krise deren Erledigung bei Bedarf entweder zu stabilisieren oder zu modifizieren.

Der dritte Aufsatz befasst sich mit der Bedeutung physischen Raums für die Bewältigung von Krisen. Die bisherige Forschung hat ihr Augenmerk überwiegend auf die Bedeutung von Zeit und den Zusammenhang mit unterschiedlichen Konzepten unter der Annahme des in Krisen herrschenden Zeitdrucks gelegt. Dabei haben Krisen auch eine stark ausgeprägte räumliche Dimension. Daher spielt der organisationale Umgang mit Raum eine erhebliche Rolle bei der Bewältigung von Krisen. Unsere Studie zeigt, dass Organisationen durch das unterschiedliche Praktizieren von Grenzen, Distanzen und Bewegung organisationale Räume entweder autoritär, adaptiv oder kollaborativ gestalten können, umso bestmöglich zur Bewältigung der Krise beizutragen.

A.3 Statutory Declarations

Erklärung

Hiermit erkläre ich, Philipp Michael Darkow, dass ich keine kommerzielle Promotionsberatung in Anspruch genommen habe. Die Arbeit wurde nicht schon einmal in einem früheren Promotionsverfahren angenommen oder als ungenügend beurteilt.

Hamburg, 25.11.2019 Philipp M. Darkow

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Eidesstattliche Versicherung:

Ich, Philipp Michael Darkow, versichere an Eides statt, dass ich die Dissertation mit dem Titel:

„Mastering Adversity: Resilient Organizing in the Age of Disruption“

selbst und bei einer Zusammenarbeit mit anderen Wissenschaftlerinnen oder Wissenschaftlern gemäß den beigefügten Darlegungen nach § 6 Abs. 3 der Promotionsordnung der Fakultät für Wirtschafts- und Sozialwissenschaften vom 18. Januar 2017 verfasst habe. Andere als die angegebenen Hilfsmittel habe ich nicht benutzt.

Hamburg, 25.11.2019 Philipp M. Darkow

A.4 Selbstdeklaration bei kumulativen Promotionen

Gemäß § 6, Absatz 3 der Promotionsordnung vom 18. Januar 2017 möchte ich im Folgenden darlegen, in welchem Umfang ich zu den Artikeln, die in Mehrautorenschaft entstanden sind, beigetragen habe. In Anlehnung an internationale Standards erfolgt die Einschätzung in drei zentralen Dimensionen:

Konzeption / Planung: Formulierung des grundlegenden wissenschaftlichen Problems, basierend auf bisher unbeantworteten theoretischen Fragestellungen inklusive der Zusammenfassung der generellen Fragen, die anhand von Analysen oder Experimenten/Untersuchungen beantwortbar sind. Planung der Experimente/ Analysen und Formulierung der methodischen Vorgehensweise, inklusive Wahl der Methode und unabhängige methodologische Entwicklung.

Durchführung: Grad der Einbindung in die konkreten Untersuchungen bzw. Analysen.

Manuskripterstellung: Präsentation, Interpretation und Diskussion der erzielten Ergebnisse in Form eines wissenschaftlichen Artikels.

Die Einschätzung des geleisteten Anteils erfolgt mittels Punkteinschätzung von 1 – 100 %

Paper I: „Beyond “Bouncing Back“: Towards an Integral, Capability-Based Understanding of Organizational Resilience (Philipp M. Darkow)

Konzept / Planung	100 %
Durchführung	100 %
Manuskripterstellung	100 %

Paper II: “Coordination Saves Lives: Towards a Dynamic Understanding of Enacting Coordinative Autonomy in Turbulent Settings” (Philipp M. Darkow / Daniel Geiger)

Konzept / Planung	60 %
Durchführung	60 %
Manuskripterstellung	70 %

Paper III: „Crafting Space: On Boundaries, Distance, and Movement in Crises Management” (Philipp M. Darkow / Daniel Geiger)

Konzept / Planung	50 %
Durchführung	60 %
Manuskripterstellung	70 %

Die vorliegende Einschätzung in Prozent über die von mir erbrachte Eigenleistung wurde mit den am Artikel beteiligten Koautoren einvernehmlich abgestimmt.

Hamburg, 25.11.2019 Philipp M. Darkow

A.5 List of Publications

Peer reviewed journal articles

1. Darkow, P.M.: *Beyond "bouncing back": Towards an integral, capability-based understanding of organizational resilience*, in: Journal of Contingencies and Crisis Management, 2018 DOI: 10.1111/1468-5973.12246.

Submitted articles

2. Darkow, P.M. / Geiger, D.: *Coordination saves lives: Towards a Dynamic Understanding of Enacting Coordinative Autonomy in Turbulent Settings*, submitted to Organization Studies
3. Darkow, P.M. / Geiger, D.: *Crafting Space: Introducing a Spatial Perspective into Crises Management*, conditionally accepted at Research in the Sociology of Organizations

Peer reviewed conference proceedings and presentations

4. Darkow, P.M. / Geiger, D. (2019): *Crafting Space: The Role of Spatial Practices in Managing Refugee Camps*, Academy of Management Annual Meeting (OMT), Boston.
5. Darkow, P.M. (2018): *Making Space: The Role of Spatial Practices in Managing Refugee Camps*, Annual Meeting for Organizational Research, Frankfurt O.
6. Darkow, P.M. / Geiger, D. (2018): *Coordination Saves Lives: The Emergence of Coordination Practices in Unstructured Terrain*, Academy of Management Annual Meeting (ODC Division), Chicago.
7. Darkow, P.M. / Geiger, D. (2018): *Coordination Saves Lives: The Emergence of Coordination Practices in Unstructured Terrain*, Northern European Conference on Emergency and Disaster Studies, Amsterdam.
8. Darkow, P.M. / Geiger, D. (2018): *Coordination Saves Lives: The Emergence of Coordination Practices in Unstructured Terrain*, VHB Workshop Kommission Organisation (accepted for presentation), Hamburg.
9. Darkow, P.M. / Geiger, D. (2017): *Managing for Resilience: The Emergence of Coordination Practices in Disaster Relief Operations*, European Group for Organizational Studies Colloquium, Copenhagen.
10. Darkow, P.M. / Geiger, D. (2017): *Managing for Resilience: Emerging Coordination Mechanisms in Emergency Response Operations*, Conference on Humanitarian Logistics, Dresden.
11. Darkow, P.M. / Geiger, D. (2016): *Managing for Resilience: Emerging Coordination Mechanisms in Humanitarian Emergency Operations*, Annual Meeting for Organizational Research, Hamburg.
12. Darkow, P.M. (2016): *Bouncing Back from Crises: A Practice Perspective on Organizational Resilience*, PhD Pre-Colloquium Workshop at the European Group for Organizational Studies Colloquium, Naples.
13. Geiger, D. / Darkow, P.M. (2016): *Coordinating Crisis: A Practice Perspective on Organizational Resilience*, Workshop Doing Research in Extreme Environments: From Methodological to Ethical Considerations, Umea.

A.6 Teaching Experience

Course	Semester	Study Program	No. of Participants	Language
BACHELOR				
Grundkurs BWL	- WS 2015/16 - WS 2016/17 - WS 2017/18 - WS 2018/19	Sozialökonomie	90	German
Grundkurs Organisation	- SS 2017 - SS 2018 - SS 2019	Sozialökonomie	30	German
MASTER				
International Organizations	- WS 2015/16 - WS 2016/17 - WS 2017/18 - WS 2018/19	International Business & Sustainability	30	English
Managing Integrity: Compliance and Responsibility	- SS 2017	International Business & Sustainability	30	English
Qualitative Methods of Empirical Research	- SS 2016	International Business & Sustainability	30	English
Studienprojekt zur Personal- und Organisations-forschung	- WS 2015/16 - SS 2016	Human Resource Management	25	German
Organisationstheorie und –entwicklung	- SS 2017 - SS 2018 - SS 2019	Human Resource Management	30	German
Management-prozesse	- WS 2017/18 - WS 2018/19	Human Resource Management	15	German

A.7 Glossary

Abbreviation / Term	Meaning
ACT	Artemisinin-based combination therapy
ALNAP	Active Learning Network for Accountability and Performance in Humanitarian Action
ART	Anti-retroviral therapy
Asylum seeker	Person who fled government persecution for ethnic, religious reasons or the threat of being tortured
BEmOC	Basic emergency obstetric care
BMI	Body mass index
BMS	Breastmilk substitutes
BTS	Blood transfusion service
CE-DAT	Complex Emergency Database
CEmOC	Comprehensive emergency obstetric care
CFR	Case fatality rate
CIHL	Customary International Humanitarian Law
CMR	Crude mortality rate
CRI	Core-Relief Item
CRPD	United Nations Convention on the Rights of Persons with Disabilities
CRS	Catholic Relief Services
CTC	Cholera treatment centre
DAC	OECD Development Assistance Committee
DPT	Diphtheria, Pertussis and Tetanus
DRC	Danish Refugee Council
EPI	Expanded Programme on Immunization
ERU	Emergency Response Unit (Red Cross)
ETAT	Emergency Triage, Assessment and Treatment
EWARN	Early warning
GRC	German Red Cross Society
HIS	Health information system
ICRC	International Committee of the Red Cross
IDP	Internally displaced people
IFE	Infant feeding in emergencies
IFRC	International Federation of Red Cross and Red Crescent Societies
IGC	International Grains Council
IHL	International humanitarian law
IMAI	Integrated Management of Adult Illness
IMCI	Integrated Management of Childhood Illnesses
IMPAC	Integrated Management of Pregnancy and Childbirth
IPC	Infection prevention and control
IRC	International Rescue Committee
IRS	Indoor residual spraying
IYCF	WHO indicators for infant and young child feeding
LBW	Low birth weight
LLIN	Long-lasting insecticide-treated net
LWF	Lutheran World Federation
MISP	Minimum Initial Service Package
MOH	Ministry of Health

MSF	Doctors without Boarders
MSM	Mass Sanitation Module (Red Cross)
MUAC	Mid upper arm conference
NCDs	Non-communicable diseases
NCHS	United States National Center for Health Statistics
NDRT	Natural Disaster Response Team (Red Cross)
NFI	Non-Food Item
NICS	Nutrition in Crisis Information System
NRC	Norwegian Refugee Council
NTU	Nephelolometric turbidity units
OAU	Organization of African Unity (now African Union)
UN-OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UN-OHCHR	Office of the United Nations High Commissioner for Human Rights
OP	Operations Manager
OPM	Office of the Prime Minister (Uganda, responsible for coordination of refugee affairs)
ORS	Oral rehydration salts
PEP	Post-exposure prophylaxis
PMTCT	Prevention of mother-to-child transmission (of HIV)
PoUWT	Point-of-use water treatment
PSN	People with specific needs
PSS	Psycho-Social Support
Q&A	Quality and accountability
Refugee	Person who fled armed conflict or persecution across national boarders, recognised as needing international protection because it is too dangerous to return home, access to social housing, welfare benefits, job integration
RFL	Restoring Family Links
RH	Reproductive health
SCM	Supply chain management
SGBV	Sexual and Gender-Based Violence
SMART	Standardised Monitoring and Assessment of Relief and Transitions
SPHERE	Internationally accepted framework for humanitarian aid, defining minimum standards for supply of beneficiaries, developed by international collaboration of humanitarian aid workers
STIs	Sexually transmitted infections
TB	Tuberculosis
TIG	Tetanus immune globulin
ToT	Training of Trainers (Red Cross)
U5MR	Under-5 mortality rate
UAM	Unaccompanied Minors
UDHR	Universal Declaration of Human Rights
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
URCS	Uganda Red Cross Society
USAID	United States Agency for International Development
WASH	Water, Sanitation, Hygiene Promotion
WFH	Weight for height
WFP	World Food Programme
WHO	World Health Organization
WSP	Water safety plan