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Manuskripterstellung: Präsentation, Interpretation und Diskussion der erzielten Ergebnisse in Form eines wissenschaftlichen Artikels.

Artikel I: Time Is Like a River: Introducing Bergson's Notion of 'Durée' to Extend the Theorization of Time in Process Organization Studies (Lisa Harborth)

Dieser Artikel ist in Alleinautorenschaft entstanden. Die Eigenleistung liegt in allen Dimensionen bei 100%.

Artikel II: The Time Is Right When You Make It Right: Coordinating Routine Clusters in Sustained Crises (Daniel Geiger/Lisa Harborth)

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List of Abbreviations

BM	Branch Manager
DERM	Deputy Emergency Response Manager
DRC	Democratic Republic of Congo
DRM	Disaster Response Manager
EPRM	Ebola Preparedness and Response Manager
ERM	Emergency Response Manager
IFRC	International Federation of Red Cross and Red Crescent Societies
IOM	International Organization for Migration
LM	Local Manager
PM	Program Manager
POS	Process Organization Studies
UNICEF	United Nations Children's Fund
URCS	Uganda Red Cross Society
V	Volunteer
WHO	World Health Organization
WM	Warehouse Manager

Overview of Dissertation Articles

Article	Current state	Impact factor	VHB Jourqual3-Ranking	Conference Presentations & Workshops
Harborth, L.: Time Is Like a River: Introducing Bergson's Notion of 'Durée' to Extend the Theorization of Time in Process Organization Studies	n/a	n/a	n/a	▪ 38th EGOS Colloquium 2022, Vienna
Geiger, D./Harborth, L.: The Time Is Right When You Make It Right: Coordinating Routine Clusters in Sustained Crises	Under review with *Organization Studies* (3rd Round Revise and Resubmit)	5.4	A	▪ Warwick Summer School on Process and Practice Studies 2020: research clinic (virtual) ▪ 37th EGOS Colloquium 2021, Amsterdam (virtual colloquium) ▪ 81st Annual Meeting of the Academy of Management 2021 (virtual colloquium) ▪ 82nd Annual Meeting of the Academy of Management 2022, Seattle
Harborth, L.: "We Borrow the Earth from Our Children": How Organizations Create Desirable Futures Through Imaginaries of Sustainability	Under review with *Organization Studies* (1st Round)	5.4	A	▪ 38th EGOS Colloquium 2022, Vienna: Paper Development Workshop "Theorizing Desirable Futures" ▪ 39th EGOS Colloquium 2023, Cagliari

Synopsis

1 Introduction

Since the beginning of management and organization studies, time has been a central concern of scholarly attention. Already in Taylor's (1911) famous time-motion study, the question about time played a crucial role in explaining how coordination could be improved. Ever since, the consideration and theorization around the notions of time and temporality in management and organization research have tremendously evolved (Blagoev, Hernes, Kunisch, & Schultz, 2023). While early research hereby focused on speed, duration, repetition, and other forms of measurable clock time, studies in recent years have shifted the perspective, now concentrating on time's underlying processuality and its onto-epistemological foundations (Hernes, 2014, p. 1). Time is no longer reduced to an externally given quantitative measure but also conceptualized through its enactment in social practices (Orlikowski & Yates, 2002) and its unfolding in organizational processes (Hernes, 2014). Thus, what generally has been described as the 'practice turn' of theorizing (Schatzki, Knorr Cetina, & von Savigny, 2001) can also be applied to time-related phenomena and studies taking a temporal lens (Blagoev et al., 2023; Hernes, 2022; Orlikowski & Yates, 2002; Wenzel, Krämer, Koch, & Reckwitz, 2020). This theoretical shift led to a novel focus on time as being enacted and created through organizations and organizational actors (e.g., Cuganesan, 2021; Geiger, Danner-Schröder, & Kremser, 2021; Reinecke & Ansari, 2015), as unfolding in and through agency (e.g., Emirbayer & Mische, 1998), as changing and evolving in organizational processes (e.g., Hernes, 2014), and as rendering past, present, and future malleable events (e.g., Augustine, Soderstrom, Milner, & Weber, 2019; Blagoev & Kremser, 2023; Danner-Schröder, 2020; Hernes & Schultz, 2020).

Time is, thus, considered a "central dimension of management" (Blagoev et al., 2023, p. 2) that enables us to explain managerial and organizational phenomena. In recent years, a plethora of research has evolved that builds on a temporal lens to explain phenomena such as processes of coordination (Geiger et al., 2021), institutionalization (Granqvist & Gustafsson, 2016; Reinecke & Lawrence, 2023), strategy making (Kaplan & Orlikowski, 2013), organizational identity (Schultz & Hernes, 2013), sustainability (Bansal & DesJardine, 2014; Slawinski & Bansal, 2015), and narratives (Beckert & Bronk, 2018; Rindova & Martins, 2022). All these topics and phenomena "make[ ] issues of time central and explicit" (Feldman & Greenway, 2021, p. 71). However, although time represents a central tenet of how we understand and grasp reality (Langley & Tsoukas, 2010, p. 10) and is, thus, fundamental to reflect upon, the related scholarly discourse expands on a wide variety of different assumptions about the nature of time.

It aggregates different ontological beliefs and epistemological understandings about what time is, where it matters, and how it matters (Blagoev et al., 2023, p. 7), thereby harboring "ambiguity and a lack of coherence" (Blagoev et al., 2023, p. 1) in its theoretical development. Yet, particularly when taking a process perspective on organizing (Langley & Tsoukas, 2010, 2016a; Langley, Smallman, Tsoukas, & Van de Ven, 2013) that focuses on organizational becoming and change (Tsoukas & Chia, 2002) rather than on organizations as entities (Bakken & Hernes, 2006; Weick & Quinn, 1999), time becomes an "inescapable reality" (Langley & Tsoukas, 2010, p. 10) that needs to be carved out in detail.

As this dissertation builds on a process understanding of organizing (Hernes, 2014), it is, therefore, essential to unravel and disentangle the underlying assumptions of temporal theorizing and to strengthen the theoretical perspectives around concepts and phenomena where time plays a fundamental role. This dissertation follows a call by Blagoev et al. (2023, p. 26) to "enrich and expand current time-based theorizing" in order to further strengthen the theoretical development around notions of time and temporality in management and organization studies. It focuses on the onto-epistemological foundations of time and temporality in process theorizing, especially addressing organizational phenomena of coordination (Okhuysen & Bechky, 2009) and sustainability (Bansal & DesJardine, 2014). The dissertation is guided by three research questions:

R1: What are the philosophical foundations of time and temporality, and how do these onto-epistemological insights change our understanding of time in process organization studies?

R2: What role does time play in coordination, and how do organizational actors enact time and temporal structures to achieve collective action in sustained crises?

R3: How do organizations create and enact past, present, and future, and how does this enactment allow organizations to shape visions of sustainable futures?

Steered by these research questions, this dissertation includes three academic articles. Article I ("Time Is Like a River: Introducing Bergson's Notion of 'Durée' to Extend the Theorization of Time in Process Organization Studies") is a conceptual article that introduces a novel conceptualization of time in process organization studies (Hernes, 2014; Langley et al., 2013). Building on the philosophical foundations of process theory, it introduces Bergson's notion of 'durée' (Bergson, 2013, 1929) to show how time unfolds through a multiplicity of single moments that not only creates the continuous flow of temporality yet also leads to unique dynamics within this flow. By extending on Bergson's theorizing, the paper develops the notions of vertical and horizontal 'durée' that a) allow to observe the perpetual

flow of time and b) to experience the unique intensities of its dynamics. These notions shed further light on the underling temporality of organizational phenomena such as urgency (e.g., Anderson, 2017), boredom (e.g., Costas & Kärreman, 2016), and stress (e.g., Eldor, Fried, Westman, Levi, Shipp, & Slowik, 2017). It extends their current understandings from a process perspective by not only highlighting how these phenomena evolve through time, yet by also elucidating how they dynamically unfold and change as actors experience them in momentary intensities. Article II ("The Time Is Right When You Make It Right: Coordinating Routine Clusters in Sustained Crises") empirically addresses the question of how organizations coordinate multiple routines in response to sustained crises, aiming to achieve robust collective action. The paper studies the Ebola response operation of the Uganda Red Cross Society (URCS) that unfolded in response to an Ebola outbreak in the Democratic Republic of Congo (DRC) and lasted for almost two years. The paper shows how URCS enacted a cluster of multiple routines to keep the operation going for an extended time period while continuously being prepared to respond to expected unexpected events. The article shows how routine participants endured temporal conflicts to sustain the operation robustly. It also presents how they purposefully manipulated past and future to flexibilize the coordination of these routines in response to these expected unexpected events. Article III ("'We Borrow the Earth from Our Children': How Organizations Create Desirable Futures Through Imaginaries of Sustainability") empirically answers the question how organizations create normative imaginations of (un)desirable futures. By studying Patagonia Inc., an organization vastly invested in communicating its visions of a sustainable world, the paper examines the underlying processes that allow the organization to create these visions of sustainable, desirable futures. It introduces the notion of *normative temporalization*, i.e., a process that enables the organization to evaluate visions of the future by juxtaposing normative visions of past and present. The paper also demonstrates how specific imaginaries of sustainability, i.e., vast shared ideas and expectations of how a sustainable world should look like, allows the organization to make visions of sustainable futures actionable in the present.

By investigating the onto-epistemological foundations of time and its relevance for understanding phenomena such as coordination and sustainability, this dissertation contributes to literature on organization and management studies in four ways. First, the dissertation adds to theories of process organization studies by challenging and extending the predominant understanding of time (Helin, 2023; Hernes, 2014; Langley et al., 2013). Second, it provides novel empirical insights into coordinating collective action and multiple routines in (sustained) crises (Bechky & Okhuysen, 2011; Faraj & Xiao, 2006; Kornberger, 2022; Okhuysen &

Bechky, 2009; Wolbers, Boersma, & Groenewegen, 2018) and the role of time as a means of coordination (Geiger et al., 2021; Hilbolling, Deken, Berends, & Tuertscher, 2022; Kornberger, Leixnering, & Meyer, 2019; Nachbagauer, 2022). Third, the dissertation contributes to research on future-making (Comi & Whyte, 2018; Thompson & Byrne, 2022; Wenzel et al., 2020) and the question of how organizations enact desirable futures (Alimadadi, Davies, & Tell, 2022; Gümüsay & Reinecke, 2022; Rindova & Martins, 2022). Fourth, it provides novel methodological insights into studies on time-related phenomena (Feuls, Plotnikof, & Stjerne, 2023) and particularly into the question of how futures can be researched through organizational practices and imaginaries reflecting (distant) futures (Augustine et al., 2019; Gümüsay & Reinecke, 2022; Hernes & Schultz, 2020; Wenzel et al., 2020).

The dissertation is structured as follows: Chapter 2 presents the theoretical background of time and temporality in organization studies and introduces the most important perspectives for the dissertation. It is followed by a summary of all four articles in Chapter 3, to then address the dissertation's theoretical and practical contributions in Chapter 4. Chapter 5 describes the dissertation's limitations and develops an outlook and avenues for future research. Finally, the full versions of all three research articles (I-III) follow.

2 Theoretical Background

With time and temporality being this dissertation's central topics and core notions, the theoretical background aims to unravel the basic assumptions, fundamental questions, and central concerns of the related scholarly discourse. To do so, I first provide insights into the theoretical and philosophical foundations of time (2.1). Then, I outline how time is structured and enacted, and explain the role of temporal structures for coordination (2.2). Finally, I elucidate on how past, present, and future are understood to evolve in the passage of time, and elaborate on their role for understanding sustainability (2.3). Each of these chapters hereby paves the way for one of the articles of this dissertation by providing a general overview of its theoretical underpinnings and by introducing its overarching research question.

2.1 Disentangling the Epistemological Foundations of Time and Temporality

As research on time and temporality in management and organization studies has evolved throughout the last decades, a wide variety of different theoretical perspectives has emerged (Ancona, Goodman, Lawrence, & Tushman, 2001a; Bansal, Reinecke, Suddaby, & Langley, 2022; Bansal, Crilly, Jansen, Langley, Okhuysen, & Shipp, 2020; Blagoev et al., 2023; Hernes, 2022; Shipp & Jansen, 2021). Time has been used to elucidate on

phenomena such as strategy (e.g., Bansal et al., 2022; Granqvist & Gustafsson, 2016; Kaplan & Orlikowski, 2013), organizational identity (e.g., Schultz & Hernes, 2013), coordination (e.g., Hilbolling et al., 2022; Oborn & Barrett, 2021), organizational routines (e.g., Geiger et al., 2021), and decision-making in crises (e.g., Kornberger et al., 2019). However, this plethora of theoretical perspectives and foci has also created a diverse scholarly discourse evolving around different basic assumptions, domains, and concepts, leading to an increasing ambiguity, "hindering scholars' ability to integrate insights and harness the full potential of time as a research lens" (Blagoev et al., 2023, p. 1).

To resolve these issues, Blagoev et al. (2023) conducted a systematic literature review of time as a research lens. They understand time as a research lens as a "conceptual mechanism that assumes time as a central dimension of management [that] highlights specific management domains in which time matters and focuses on research on the use of time-based concepts that explain how time matters" (Blagoev et al., 2023, p. 2). Through their systematic analysis, the authors unravel three different temporal lenses that dominate the current scholarly discourse, each evolving around an idiosyncratic set of basic assumptions, domains, and concepts. They define the three lenses that dominate the scholarly discourse as 'time as resource', 'time as structure', and 'time as process'. Although these three lenses are all relevant to understand the role of time and temporality in organizational and managerial phenomena, they derive from different understandings of what time is, where it matters, and how it matters (Blagoev et al., 2023, p. 7).

Time as resource examines "how organizations, managers, and entrepreneurs use time instrumentally", focusing, for example, on aspects such as timing, speed, and the temporal horizon of actions (Blagoev et al., 2023, p. 8). Understanding time as a resource is particularly relevant when using time as an equivalent of economic benefit and monetary value. Following this lens allows organizations and managers to improve the efficiency, performance, and growth of organizations, for example by improving team performances through effective temporal leadership (Santos, Passos, Uitdewilligen, & Nübold, 2016). Time as structure, in contrast, foregrounds questions of "how shared, collective temporal structures facilitate social order, control, and coordination in and among teams, organizations, and networks of organizations" (Blagoev et al., 2023, p. 13). It understands time as being enacted through social practices and organizational actions, thereby aiming to explain why and how teams, managers, and other organizational actors as well as organizations create and enact certain temporal structures such as calendars, schedules, and clocks. Time as structure thereby focuses on questions of how collective action is coordinated (Dille, Hernes, & Vaagaasar, 2023; Geiger et al., 2021;

Kornberger et al., 2019; Oborn & Barrett, 2021; Turner & Rindova, 2021, 2018), how shared temporal structures emerge (Blagoev & Schreyögg, 2019; Kremser & Blagoev, 2021; Rowell, Gustafsson, & Clemente, 2016), and, more generally, how social temporal order evolves (Zerubavel, 1981). This conceptualization of time as evolving from social practices, for example, allows to explain how organizations and managers form different temporal structures to achieve interorganizational project collaboration (Dille et al., 2023). Lastly, time as process questions "how actors collectively negotiate, enact, and interconnect the present, past, and future" (Blagoev et al., 2023, p. 18). This perspective emphasizes that past, present, and future are not fixed points in time but rather are malleable events that arise out of and are shaped in the present experiences (Bergson, 1929; Hernes, 2016; Hodges, 2008; Mead, 1932). It questions how organizations, managers, and other organizational actors are able to make sense out of past events (Hernes & Obstfeld, 2022), (re-)interpret past and future events in order to shape strategic goals (Kaplan & Orlikowski, 2013) or create an organization's identity (by reflecting upon the past) (Schultz & Hernes, 2013; Ybema, 2010). Following this lens allows to consider past and future as events that organizations, managers, and other actors (re-)interpret in each present moment, thereby being able to embrace, transform or also reject these interpretations depending on their point of reference (Bell, Dacin, & Toraldo, 2021; Branstad & Ødegård, 2023; Pettit, Balogun, & Bennett, 2023; Rindova & Martins, 2022). Time as process, thus, highlights past, present, and future not as fixed points on a timeline yet rather as malleable interpretations that are being shaped and reshaped in the ongoing experience of organizations, managers, and other organizational actors.

As this dissertation is particularly interested in questioning of how organizing unfolds (Langley & Tsoukas, 2016b; Tsoukas & Chia, 2002), it foregrounds the perspectives of time as structure and time as process. Both perspectives, although having different foci, highlight the flow of time and allow to explain the underlying temporality of organizing (Hernes, 2014). While time as structure hereby emphasizes the regularity of organizing through a focus on temporal structures (see also Chapter 2.2), time as process focuses on disruption through the ever-changing flow of past, present, and future (see also Chapter 2.3) (Blagoev et al., 2023, pp. 33-34). Both perspectives, however, highlight the underlying temporality of organizational becoming, and therefore allow to shed further light on processes of change and becoming (Feldman & Pentland, 2003; Tsoukas & Chia, 2002). So, rather than considering time as a resource that can improve the economic benefit of organizations, this dissertation focuses on questions of how organizations, managers, and other organizational actors can use and shape time and temporal structures in order to achieve coordination, create visions of sustainable

futures, or embrace any other form of shaping the flow of time. Within this line of thinking, time represents an immanent and inherent trait of organizing (Hernes, 2014, 2022) that unfolds not only as an "indivisible flow of interconnected events" (Blagoev et al., 2023, p. 18) but is also shaped through social practices and organizational actions, providing a "shared, collectively negotiated template for the ordering of social life" (Blagoev et al., 2023, p. 13). In order to further unravel and disentangle the theoretical underpinnings of these perspectives, this dissertation aims to elucidate the philosophical foundations of time and temporality. It builds on Bergson's (2013, 1950, 1929) notion of an ever-flowing reality that is fundamental to understand the flow of time and questions how these insights help us to carve out how organizing and organizational phenomena temporally evolve.

2.2 Structuring Time: Temporal Structures and Their Role for Coordination Processes

The question of how temporal structures evolve and how organizations enact and create these structures has been a central concern for management and organization studies (Bansal & DesJardine, 2014; Hernes, 2022; Kremser & Blagoev, 2021; Reinecke & Ansari, 2015). Generally, temporal structures are understood as "social structures […] anchored in the passage of time that enable people to orient and coordinate ongoing work practices" (Turner & Rindova, 2018, p. 1257). They occur in form of calendars, clocks, and deadlines, but also through shared rhythms or paces (Adam, 1995), thereby representing "powerful templates" (Orlikowski & Yates, 2002, p. 685) for organizations, actors, and managers to coordinate and orient their actions with each other (Ancona, Okhuysen, & Perlow, 2001b; Rowell et al., 2016). As organizations and organizational actors shape and reshape these temporal structures through their actions and practices, they create shared temporal norms and values that provide orientation and guidance for others (Granqvist & Gustafsson, 2016), thereby, for example, simplifying work coordination between medical specialists (Oborn & Barrett, 2021) or multiparty and cross-sector collaboration for societal challenges (Hilbolling et al., 2022).

For many years, research has differentiated between clock and event time to explain diverging temporal structures within, between, and around organizations (Ancona et al., 2001b; Orlikowski & Yates, 2002; Reinecke & Ansari, 2016; Turner & Rindova, 2018). While clock time focuses on the quantitative and measurable aspects of time that are represented in organizations through clocks, calendars, and deadlines, event time explains the emergence of different events in their qualitative characteristics of organizational processes (Adam, 1995; Ancona et al., 2001b; Reinecke & Ansari, 2015; Turner & Rindova, 2018). Time is hereby either reduced to an external measure allowing to define a particular point in time (i.e., 'when')

or explains how things evolve through different events in organizational processes. Clock and event time, hereby, represent two dichotomous perspectives on temporal structures, that yet do not explain how they are created. While clock time allows to explain that managers regularly meet every first Monday morning at 10am to discuss strategic goals, event time can highlight how this event of a weekly meeting triggers further actions, such as a follow-up meeting with the team for updates. However, both perspectives do not elucidate how these meeting times were agreed upon or how they eventually change when, for example, organizational processes change. Thus, when Orlikowski and Yates (2002) introduced a practice-based perspective on time and temporality that explains how organizations and actors produce and reproduce temporal structures such as clock and event time through recurring social practices, the authors shaped a novel understanding of time and temporality in management and organization studies. This practice-based understanding of time recognizes both clock and event time as enacted by organizational actors, as these actors "knowledgeably produce and occasionally change the temporal structures they enact in their practices – treating schedules and deadlines as provisional, relative, and alterable" (Orlikowski & Yates, 2002, p. 689). Hence, following a practice-based perspective on time and temporality allows us to recognize that clock and event time are not objectively given but rather emerge through the active and agentic role of these actors that shape and create deadlines and calendar entries (Blagoev & Kremser, 2023; Feldman & Pentland, 2003; Kremser & Blagoev, 2021; Oborn & Barrett, 2021). Meeting times, thus, do not solely represent pure dates in a calendar or are triggered by other meetings, yet can be explained through their enactment. A practice-based perspective focuses on explaining how managers came up with these particular meeting times, why they decided that these times were useful, and how they change these times. In consequence, temporal structures become "both the medium and outcome of those [temporal structuring] practices" (Orlikowski & Yates, 2002, p. 689), allowing actors to determine how these structures unfold, change, and manifest themselves in organizational becoming.

As these temporal structures are enacted, they also encompass an orientation for organizations and organizational actors (Rowell et al., 2016). By adhering to these temporal structures, actors value, attend to, and prioritize these temporalities, thereby determining and changing "how time is attended to in a practice" (Rowell et al., 2016, p. 315). Thus, when managers agree upon a certain time for their strategy meetings, this meeting represents a future event that provides orientation, for example, in deciding when their pitch should be ready, how the project should be temporally structured until then, and how and when they should collaborate with other teams. The temporal orientations that arise out of these temporal

structures impact the organization's present actions and practices, thereby changing and shaping their ongoing activities (Hernes & Schultz, 2020).

To expand on the vocabulary that explains temporal structures in organizations beyond clock and event time, research has started to develop novel conceptualizations and notions that describe the structuring of time. Here, different concepts have emerged that allow to grasp and operationalize different forms of temporal structures that shape the temporal reality of organizations. Organization and organizational actors, for example, engage in *patterning* to temporally anchor their actions in relation to time (Danner-Schröder & Geiger, 2016; Feldman, Worline, Baker, & Lowerson Bredow, 2022). They secure the *timing* of their actions (Nachbagauer, 2022; Turner & Rindova, 2018) by enacting a certain *rhythm* (Cunha, 2009; Geiger et al., 2021) or by following a *pace* (Ancona & Waller, 2007; Ancona & Chong, 1996), thereby allowing to describe temporal structures that go beyond the pure understanding of clocks or events. For example, research on entrainment shows how organizations and organizational actors adhere to an external pacer or 'Zeitgeber' (Bluedorn, 2002), thereby synchronizing their temporal structures with dominant societal rhythms (Ancona & Chong, 1996; Pérez-Nordtvedt, Payne, Short, & Kedia, 2008; Zellmer-Bruhn, Waller, & Ancona, 2004). For example, organizations usually establish working hours that align with other organizations in order to ensure practicable meeting times, yet also support employees to pick up their children from kindergarten or school. Research, however, has also shown how organizations are able to temporally uncouple from these temporal structures of their environment and impede an entrainment with external pacers (Blagoev & Schreyögg, 2019). By drawing on a historical case study of an elite consultancy, Blagoev and Schreyögg (2019) show how the organization incrementally developed extreme working hours that differentiated from the traditional workweek. As these working hours were continuously being reinforced, they gradually became the 'new normal' for the consultancy, leading to an asynchronization between the temporal structures of the organization and its environment. Temporal structures, thus, play an essential role in explaining the temporal realities of organizations and organizational actors. They elucidate on how organizations and actors respond to the temporal demands of their environment, yet also show how and why these temporal structures emerge or dissolve.

Temporal structures are also a key element when questioning how organizations and organizational actors coordinate their work (Hilbolling et al., 2022; Kornberger et al., 2019; Nachbagauer, 2022). As researching coordination aims to elucidate how interdependent tasks are collectively accomplished (Okhuysen & Bechky, 2009), it is highly relevant to unravel how

these interdependent tasks can be temporally integrated (Geiger et al., 2021, p. 221). For example, in their study on municipal garbage collection routines, Turner and Rindova (2018) show how the routine performance of garbage collection is coordinated. As citizens relied on recurring timing norms (e.g., the sound of the garbage truck), they were able to predict when the garbage was being collected without having to check their calendars. By creating and relying on these timing norms, actors were then able to develop a shared understanding of the temporal structures that facilitated the coordination of the collective effort of garbage collection (Turner & Rindova, 2018, p. 1257). In a similar vein, Geiger et al. (2021) studied how firefighters coordinated multiple routines within their firefighting operations. The authors show how organizational routines are coordinated under high levels of temporal uncertainty of the environment (i.e., the firefighting operation). Routine participants enacted temporal autonomy to temporally uncouple from the unfolding situation (Geiger et al., 2021, p. 220). Only by creating their own temporal structures that were not disrupted through the temporalities of the environment, i.e., the fire or other event that caused the operation, were routine participants able to coordinate the multiple different routines that were part of the operation. They achieved this temporal autonomy by enacting temporal boundaries between routine performances, enabling routine participants to switch, and thus coordinate, their routine performances with each other (Geiger et al., 2021, p. 255).

Thus, it is highly relevant to unravel the underlying temporal structures of coordination processes and to show how they are being shaped and reshaped in organizations. However, whilst research has highlighted how these structures are enacted to achieve coordination in rather stable settings (Turner & Rindova, 2018) or short-term emergencies (Bechky & Okhuysen, 2011; Faraj & Xiao, 2006; Geiger & Danner-Schröder, 2021; Geiger et al., 2021), particularly coordination in complex and long-lasting crises remains an underexplored topic. As these operations "require special measures that combine ad-hoc action, continuous awareness over longer time periods, and the collaboration of multiple actors" (Geiger, Harborth, & Mugyisha, 2020, p. 1), organizations, actors, and managers have to deal with oftentimes complex and diverging temporal structures (Kunisch, Blagoev, & Bartunek, 2021), thereby hampering a smooth coordination. Taking a temporal lens hereby provides a promising perspective to unravel and disentangle how coordination unfolds. This dissertation therefore questions the role of time and temporal structures for coordination, particularly focusing on how organizations and organizational actors enact time to achieve collective action in sustained crises.

2.3 Flowing Time: The Present-Past-Future Relationship and the Construction of Sustainability

This scholarly discourse around temporal structures is complemented by the question of how past, present, and future emerge and develop, and how they relate to each other in organizational becoming (Bell et al., 2021; Hernes & Schultz, 2020; Hernes, 2016; Kim, Bansal, & Haugh, 2019; Wenzel et al., 2020). For many years, past, present, and future have been considered a succession of subsequent events that provide a before-after structure to the flow of time (Hernes, 2022, pp. 51-52). However, building on the theoretical arguments of the philosophy of time changes this perspective. Here, scholars reconsider past and future as arising from, and thus, only existing in the present moment of experience (Bergson, 1965, 2013; Deleuze, 1988; Hodges, 2008; Mead, 1932). The present hereby represents the only moment that actors can experience and observe the flow of time in. Therefore, past and future are rendered momentary constructions and interpretations that evolve within this present experience (Bergson, 2013). In consequence, the relationship between past, present, and future is often displayed as 'present-past-future' (Hernes, 2022, pp. 36-38), emphasizing the momentariness of this flow as arising out of the present moment. Instead of representing subsequent, single events, present, past, and future are understood to unfold in a continuous flow (Flaherty & Fine, 2001; Mead, 1932): "actors operate in an ongoing present from which the past and future are constructed and reconstructed" (Hernes, 2022, p. 37). Consequently, rather than representing fixed and externally given states of reality, past and future only arise out of and evolve in and through an interpretation that unfolds in an ongoing present, which is continuously changing.

This understanding of the passage of time emphasizes organizational becoming as arising out of and evolving through its and its actors' present experiences, rendering these actors as agents of past and future that shape and define their emergence and evolution (Emirbayer & Mische, 1998). Consequently, these experiences contribute to a multiplicity of pasts, presents, and futures that form the flow of organizational becoming (Tsoukas & Chia, 2002). Hernes (2016) has described this temporality of organizational becoming as a temporal trajectory. This trajectory is constituted by a multiplicity of single events, i.e., momentary experiences, that yet do not represent "mere happenings along a timeline [but rather] contribute to a continuation of the trajectory by reproducing the preceding pattern of events" (Hernes, 2016, p. 605). Past, present, and future unfold in an indivisible flow that is (re-)constructed and (re-)shaped with every present experience. Thus, rather than being parts of a one-sided arrow (Hodges, 2008), past and future unfold in continuous creation and recreation shaped by a multiplicity of present

experiences. For organizations, managers, and other organizational actors this change of perspective has severe consequences. Rather than understanding, for example, the organization's history as a fixed event that can only be interpreted in one, definite way, this understanding allows to explain why the interpretation of the same historic event in an organization's history might change. Depending on the characteristics of the present, the organization is able to shift its perspective, and to re-shape this past event, thereby changing its interpretation.

This focus on the present-past-future relationship also changes the research questions that are asked. Instead of considering past and future events as unquestionable, determined, and predictable, research focuses on how organizations construct their interpretations of past and future events and how they interact with these. Hereby, both past and future are understood as "not objectively given, but instead a socially constructed and therefore always malleable horizon of actions situated in the present" (Blagoev & Kremser, 2023, p. 167). Following this line of thought, Danner-Schröder (2020), for example, examined how past, present, and future events form structure over time. By studying the Great East Japan Earthquake, the author shows how different events that unfolded over several years were foregrounded and backgrounded, allowing the creation of a unique and idiosyncratic temporal structure that formed the temporal trajectory of the events of this earthquake. In a similar vein, Ybema (2010) shows how a Dutch newspaper reconstructed its identity through discontinuity talks, thereby creating a discontinuous flow between its past and its future. By illustrating how the organization purposefully withdraw from 'old' legacies, and engaged in 'new' future plans, a novel identity emerged. Both studies demonstrate how organizations and organizational actors purposefully and deliberately (re-)shape past and future events in an effort to foreground particular interpretations. Thus, the temporal trajectory of these past, present, and future events does not unfold in a defined and unalterable flow of time but rather is open for interpretation and reinterpretation.

In the effort to disentangle this present-past-future relationship, particularly the future represents a "problematic, open-ended temporal category" (Wenzel et al., 2020, p. 1442). It is per definition unknown and unknowable, yet conveys an integral and omnipresent part of the human experience (Hernes, Simpson, & Soderlund, 2013, p. 3). However, research has acknowledged that planning, i.e., aiming to predict and arrange future developments, is insufficient to respond to the future's uncertainty (Kaplan & Orlikowski, 2013; Wenzel, 2022). As "the future is not an objective 'thing' out there, waiting to be measured through supposedly more or less accurate planning techniques" (Wenzel et al., 2020, p. 1444), it remains

unpredictable, and, hence, open for interpretation, which organizations have to embrace through their actions in the present. Despite this immanent uncertainty, it represents a central aspect of social life and organizational reality that researchers as well as practitioners have to respond to (Gümüsay & Reinecke, 2022).

Research has aimed to unravel how organizations make sense out of these futures beyond pure planning and strategy-making (Augustine et al., 2019; Beckert & Bronk, 2018; Burø, 2023; Flyverbom & Garsten, 2021; Kim et al., 2019; Pettit et al., 2023; Rindova & Martins, 2022; Slawinski & Bansal, 2012). Hereby, two theoretical perspectives have emerged that help to unravel how organizations master this temporal challenge: future-making (Comi & Whyte, 2018; Thompson & Byrne, 2022; Wenzel, 2022) and temporal translation (Hernes & Schultz, 2020). Both future-making and temporal translation shed light on the question of how organizations demarcate, imagine, and enact futures in the present moment. Future-making aims to explain "how imagined futures are enacted and produced" (Thompson & Byrne, 2022, p. 249) through certain practices in the present, seeking to "sell" these futures to organizations (Wenzel et al., 2020, p. 1447). Thus, engaging in future-making practices enables organizations and organizational actors to create their interpretations of the future, thereby already (re-)creating these futures in the present experience and thus rendering it part of their reality. Temporal translation, in contrast, emphasizes the underlying reflexivity that organizational actors require in order to translate these imagined futures into their ongoing temporal structures in the present (Hernes & Schultz, 2020). It thus highlights how organizations and actors can change present temporal structures by reflecting upon imagined future states. Following these theoretical angles helps to unravel and understand how organizations create, enact, modify, and make sense out of imaginations of the future in the present. In doing so, these perspectives shed light the future's role in this present-past-future relationship.

These insights are particularly beneficial when studying organizational phenomena that relate to future endeavors such as sustainability (Bansal & DesJardine, 2014; Kim et al., 2019; Slawinski & Bansal, 2015) or grand challenges (Ferraro, Etzion, & Gehman, 2015; Stjerne, Wenzel, & Svejenova, 2022). As sustainable development or organizing for sustainability entails considering future generations (World Commission on Environment and Development, 1987), it is essential to unravel how organizations are able to enact these futures. Research has hereby pointed to the relevance of juxtaposing present- and future-orientations to achieve long-term goals and to avoid temporal myopia (Liang, Marquis, Renneboog, & Sun, 2018; Slawinski & Bansal, 2015). Juxtaposing short- and long-term goals enables organizations to achieve

temporal ambidexterity, i.e., to "balance their short-term and long-term needs" (Slawinski & Bansal, 2015, p. 544). In a similar vein, research found that balancing these temporal tensions between short- and long-term needs was also accomplished by organizations that could consider the present not as a trade-off with the future but as continuously unfolding (Kim et al., 2019). Considering the present as a "long-present", i.e., "as a way of perceiving the present over an extended duration, constituted by processes that are inseparable from one another" (Kim et al., 2019, p. 626) allows organizations to achieve sustainable development through successive and incremental changes (Kim et al., 2019).

Also, the recent debate around studying desirable futures (Gümüsay & Reinecke, 2022) builds on these questions yet moves one step further by asking: "[…] how can we study, conceptualize, and theorize what is not (yet) observable and does not (yet) exist? Could we indeed build valid theories based on acts of imagination?" (Gümüsay & Reinecke, 2022, pp. 236-237). Here, first studies have examined the role of imaginations and imaginaries (Beckert, 2016; Beckert & Bronk, 2018; Bell et al., 2021; O'Neill, 2020; Rindova & Martins, 2023, 2022; Thompson, 2018). For example, in their study on geoengineering, Augustine et al. (2019) show how a fictional technology is increasingly regarded "as if it were a real option" (Augustine et al., 2019, p. 1932). The authors demonstrate how imaginaries enabled actors to construct these futures no longer as distant futures that are characterized by high abstraction, building on fantasies and fiction, and unfolding in discontinuity from present experiences, yet rather as being transformed into "as-if" realities that represent a serious possibility of the future (Augustine et al., 2019, pp. 1934-1935). Considering these imaginations and imaginaries of the future provides a helpful starting point to research how organizations construct and envision these distant futures. It yet remains underexplored how these imaginaries then obtain a normative underpinning and allow organizations to, for example, form an interpretation of *desirable* futures (Gümüsay & Reinecke, 2022). However, particularly when questioning how sustainability can be achieved, unraveling the normative underpinnings of these sustainable futures is essential. As sustainability entails an immanent temporal component (Bansal & DesJardine, 2014), it is of utmost importance to understand how organizations and organizational actors are able to (re-)interpret the future, and how these (re-)interpretations change and form the normative grounds of these envisioned sustainable futures.

By taking upon these diverse theoretical perspectives of time and temporality in organizing, this dissertation aims to respond to the issues and questions raised in three different research articles. In the following, I summarize these three articles, present their theoretical backbone, their research questions, methods, as well as their main findings and contributions.

3 Summary of Articles

Article I: Time Is Like a River: Introducing Bergson's Notion of 'Durée' to Extend the Theorization of Time in Process Organization Studies

With the emergence of process organization studies, research has developed a novel theoretical angle at questioning and understanding how organizing unfolds (Langley & Tsoukas, 2016a; Langley et al., 2013). Process organization studies focus on the becoming of organizations (Tsoukas & Chia, 2002), conceptualize organizations as "sites of continuously changing human action" (Tsoukas & Chia, 2002, p. 577) and question how organizing unfolds *in* and *through time* (Hernes, 2014; emphasis added). Time is, thus, rendered an "inescapable reality" (Langley & Tsoukas, 2010, p. 10) that helps to unravel how organizing unfolds *in* time and how organizational phenomena *temporally* evolve (Langley & Tsoukas, 2010; Langley et al., 2013; Tsoukas & Chia, 2002). Hence, theorizing organizations from a process perspective is inseparably interwoven with grasping the theoretical underpinnings of time. It requires dismantling the nature of time to fully unravel how processes evolve.

However, although time represents such a substantive aspect of process theorizing, it is mainly understood as providing order to the phenomena under study (Hernes, 2014). Rather than grasping time in its full complexity (Helin, Hernes, Hjorth, & Holt, 2014), process theorizing overlooks the immanent characteristics and dynamics of time and temporality. This paper challenges this one-sided perspective on time in process organization studies, and introduces novel perspectives that can enrich our theorizing. By engaging in "perspectival theorizing" (Cornelissen, Höllerer, & Seidl, 2021, p. 10), this paper introduces Bergson's (2013, 1929) notion of 'durée' to develop a more nuanced and articulated understanding of time in organizational becoming.

Bergson (2013, 1929) conceptualizes 'durée', an immanent characteristic of time, through a duality of moments and flow that unfolds in unique dynamics. In his understanding, 'durée' represents both an ever-flowing reality as well as a momentary psychological experience that allows to grasp this reality (Bergson, 1946), resulting in a duality of moment and flow. Translating this conceptualization of 'durée' to the theorizing of time in process organization studies allows us to unravel the immanent dynamics of time and temporality in organizational becoming. Time is no longer understood as solely unfolding in continuity (as process organization studies already describe it), yet also as evolving through dynamically changing intensities within each moment. This novel perspective allows to differentiate between the temporal flow of organizational becoming and the temporal intensity in which this organizing

unfolds. The paper takes up on this understanding and introduces the notions of vertical and horizontal ‘durée’. While horizontal ‘durée’ describes how we observe the perpetually evolving flow of time, vertical ‘durée’ explains the experience of time through the consideration of the immanent qualities of its single moments. It depicts how single moments of experience change their intensity within organizational becoming, allowing to further reflect on the dynamics and characteristics of these moments in the flow of processes. This opens up novel perspectives and further research directions to understand how emotions and other bodily experiences can be conceptualized from a process perspective, yet also how urgency and crises unfold in organizational becoming.

Article II: The Time Is Right when You Make It Right: Coordinating Routine Clusters in Sustained Crises

As long-lasting crises such as climate change, epidemics, and pandemics are accelerating and increasing (Schneider, Radtke, & Weller, 2021), organizations, and especially crisis response organizations, must prepare themselves to be able to respond to these developments. Research on coordinating collective action in crises has already indicated the relevance of enacting routines to ensure reliable, robust operations (Bechky & Okhuysen, 2011; Feldman et al., 2022; Geiger & Danner-Schröder, 2021; Weick & Sutcliffe, 2007). Enacting routines is crucial as it enables routine participants to keep operations on track despite disruption and to remain focused in adverse environments (Geiger & Danner-Schröder, 2021). Hereby, research so far has focused on how single routines are enacted and coordinated that quickly can be reorganized to respond to unexpected events (Bechky & Okhuysen, 2011; Danner-Schröder & Geiger, 2016). However, as more recent studies have pointed out, also the enactment of multiple routines plays a crucial role, allowing to respond to more complex coordination challenges and operations that require organizations to quickly switch from one routine performance to another (Geiger et al., 2021). Nevertheless, while all these studies shed important light on how routines are coordinated in response to short-term crises and emergencies, it remains unclear how organizations are able to withstand adversity over extended periods of time. Here, more stable, reliable operations are required (Darkow, 2019; Weick & Sutcliffe, 2007), which then entail a tighter coupling of interdependent routines (Rosa, Kremser, & Bulgacov, 2021). Taking a routine dynamics lens (Feldman & Pentland, 2003), this paper asks: *How are multiple routines coordinated in response to sustained crises that extend over prolonged periods of time to achieve robust collective action?*

To address this question, this paper studied the Ebola response operation of the Uganda Red Cross Society (URCS) that was embedded in the broader context of the 10th Ebola epidemic in the Democratic Republic of Congo (DRC). It lasted from 1 August 2018 until 25 June 2020 and, with over 2,200 deaths, represented the second deadliest Ebola epidemic in the world's history (World Health Organization, 2020a). Very early on, Uganda declared the outbreak in neighboring DRC as a serious public health emergency, and strict measures to prevent the spread of Ebola into Uganda were implemented. One of the main actors was URCS, the leading crisis response organization in the country. However, since URCS typically responds to short-term crises like floods, accidents, or landslides where the operations last only for a very limited time, the Ebola outbreak posed a significant coordination challenge for URCS and its partner organizations. It required coordinating a set of routines in a robust, reliable way over extended periods of time while simultaneously responding to urgent events that challenged the continuity of the operation. By building on an explorative approach with a primary focus on observation, suitable for studies in routine dynamics (Dittrich, 2021), this paper examines how URCS coordinated these multiple routines for almost two years. We find that by enacting a cluster of interdependent, complementary routines that are connected via interfaces, URCS was able to maintain a robust operation over this extended time period that met both the needs of a robust, reliable operation as well as the flexibility to respond to expected unexpected events.

The paper hereby makes two main contributions. First, we show how the continuity of the operation is achieved by the ability of routine participants to *endure conflicting temporal orientations* through temporarily de-coupling once tightly coupled routines. This de-coupling is possible since routine participants purposefully manipulated past and/or future in an effort to coordinate interdependent routines. These insights contribute to our understanding of how collective action in sustained crises that require efficient and robust outcomes is balanced with the need for flexibility. Second, we contribute to research on coordination by introducing the notion of *temporal manipulation*, which allows us to conceptualize coordination not as something that refers to the alignment of time or the enactment of temporal structures but instead renders the manipulation of time itself as a means of coordination.

Article III: "We Borrow the Earth from Our Children": How Organizations Create Desirable Futures Through Imaginaries of Sustainability

In times of predominant and advancing social and ecological challenges such as climate change, biodiversity loss, and growing poverty, organizations continuously face the challenge and need to organize for sustainability (Bansal, 2002; Hengst, Jarzabkowski, Hoegl, &

Muethel, 2020). Here, organizations continuously encounter the dilemma of adapting their social, environmental, and economic actions in the present to meet the needs of future generations (World Commission on Environment and Development, 1987). Organizing for sustainability thus immanently relates to a question of time and temporality, more specifically to the question of how organizations can enact and address the future through present-day practices (Bansal, 2019; Bansal & DesJardine, 2014; Kim et al., 2019; Slawinski & Bansal, 2012). Yet, organizing for sustainability not only reflects a question of time in general but also challenges how these futures look (Gümüsay & Reinecke, 2022). As the ultimate needs and desires of future generations are, per definition, unknown and unknowable (Wenzel et al., 2020), organizing for sustainability implies imagining the underlying desirabilities of these sustainable futures without being able to anticipate what these desires will entail.

Here, research on future-making (Comi & Whyte, 2018; Wenzel, 2022) already provides helpful explanations. It addresses the question of how these unknown and unknowable futures are enacted in the present by highlighting the role of imaginations and imaginaries, enabling organizations to create ideas of how these futures might look (Thompson & Byrne, 2022). However, while future-making enables us to understand how organizations create these imaginations of future realities, it remains unclear how these are framed as *desirable* futures (Gümüsay & Reinecke, 2022). Imagining desirable futures entails evaluating the normative underpinnings of these imaginations, requiring organizations to gain a shared understanding of what counts as desirable or not. Therefore, this paper focuses on the "guiding normative conceptions of the future" (Gümüsay & Reinecke, 2022, p. 237) by asking: *How do organizations create normative imaginations of (un)desirable futures?*

To address this question, the paper takes an abductive approach (Timmermans & Tavory, 2012) for data collection and analysis. It purposefully sampled (Patton, 2015) the case of Patagonia Inc., an organization that is vastly invested in creating its own desirable future through its sustainability communication (Fieseler, Fleck, & Meckel, 2010). The paper is based on the analysis of 2,088 blog posts and 74 films from the corporate blog (www.patagonia.com/stories) from the time between February 3, 2007 (date of the first blog post) and October 19, 2022 (date of the announcement that the ownership rights of the organization changed). Taking an abductive approach allowed me to incorporate existing explanations of future-making and desirable futures while taking a closer look at Patagonia's communicative efforts to create sustainable futures. By engaging in a multi-step analysis, a set of findings emerged, showing how Patagonia used imaginaries of sustainability to create shared normative visions of not only the future but also of past and present. Juxtaposing these visions

of past, present, and future then allowed Patagonia to create a shared normative understanding of the future's desirability.

These findings allow me to develop two contributions. First, the paper introduces the notion of *normative temporalization*, i.e., the process of evaluating visions of the future by juxtaposing normative visions of past and present. It contributes to research on future-making by unravelling how imagined futures entail and obtain a normative underpinning. Rather than just focusing on the fact *that* organizations create imaginations of the future, normative temporalization describes how these imaginations obtain a normative dimension. Second, these findings contribute to the agentic aspects of specific imaginaries. The paper shows that particular imaginaries of sustainability influence how futures become actionable by either supporting or opposing visions of past and present. This contributes to research on imaginaries and their influence on how organizations enact certain futures.

4 Theoretical and Practical Contribution

In this dissertation, I examine how organizations create and enact time, how organizational actors manipulate time to achieve coordination, and how they create normative imaginations of desirable futures. I analyze the role of time to explain coordination and robust action in long-lasting crises and elucidate on how a temporal lens allows to clarify how organizations shape visions of sustainable, desirable futures. As a result, this dissertation provides insights into the theoretical and philosophical foundations of time in process organization studies (Article I). It explores how organizations enact and manipulate past, present, and future (Article II & III) to achieve coordination (Article II) or visions of desirable futures (Article III). Furthermore, the dissertation studies how organizations shape the normative underpinnings of time (Article III), and it provides insights into the question how emotions evolve in momentary experiences (Article I). Adding to the specific contributions mentioned in the respective articles, in the following, I will summarize two overarching theoretical contributions to the literature as well as the dissertation's practical implications and relevance.

First, this dissertation adds to and extends the discourse around temporal agency (Emirbayer & Mische, 1998; Hernes, 2022; Pontikes & Rindova, 2020). Whereas agency so far has been understood as a "temporally embedded process of social engagement, informed by the past (in its habitual aspect), but also oriented toward the future (as a capacity to imagine alternative possibilities) and toward the present (as a capacity to contextualize past habits and future projects within the contingencies of the moment)" (Emirbayer & Mische, 1998, p. 963), the consequences of this embeddedness of agents in the temporal flow has not been carved out in

full detail. The findings of this dissertation highlight the relevance of examining the underlying temporality of agency and its role in understanding how actors are able to shape the temporality of actions and processes. This dissertation, for example, shows how routine participants are able to purposefully manipulate past, present, and future, thereby building on the underlying temporality of their agency, which also allows them to shape the temporality of their patterns of actions. Although these patterns of action are enacted in the present moment by routine participants (Feldman & Pentland, 2003), as agents these routine participants are "temporally embedded" (Emirbayer & Mische, 1998, p. 963) in the flow of time, and thus are able to change past and future of the routine performance. Temporal agency allows actors and routine participants to rule and shape their past and future, and thus also to manipulate the temporality of their routine performance. Also, when organizations engage in the process of normative temporalization, they purposefully enact a juxtaposition that determines which visions of past, present, and future account as desirable or not. Thus, as agency comprises past, present, and future in the moment of action, it enables routine participants and other organizational actors to act upon and shape these different temporalities in the present moment.

Second, this dissertation contributes to research on temporal complexity (Kunisch et al., 2021) and pluritemporality (Nowotny, 1992). Here, research has already pointed to the multiplicity of different temporalities that shape organizational reality (Luhmann, 1995, 1990), and thus influence and challenge established temporal systems, structures, or practices (Bansal et al., 2022; Bansal, 2019; Blagoev & Schreyögg, 2019; Reinecke & Ansari, 2015; Schultz & Hernes, 2023). Particularly in crises, multiple temporalities are prevalent in organizational becoming, thereby contributing to the temporal complexity, i.e., the "multiple time dimensions and their interplay" (Kunisch et al., 2021, p. 1412), of the situation. This dissertation adds to the question of how organizations deal with and embrace these multiple temporal dimensions, for example, by showing how long-lasting crises unfold in a tension between an enduring timeframe and recurring expected unexpected events. While the enduring timeframe creates a consistent temporal intensity (i.e., for a long time, nothing happens that challenges the ongoing, robust operation), the recurring expected unexpected events, however, cause an increase of the temporal intensity (i.e., at the moment a case enters the country, everyone is on high alert and the operation is quickly upscaled). This emphasizes the co-existence of multiple temporalities and "the plurality of different modes of social time(s)" (Nowotny, 1992, p. 424) that shape the organization's reality. By showing how actors were able to endure the related temporal conflicts that arose from this tension to ensure a robust operation while flexibly responding to the expected unexpected events, the dissertation highlights how

organizations and organizational actors were able to embrace these multiple temporalities and the related temporal complexity. Also, the theoretical notions of vertical and horizontal ‘durée’ contribute to understanding this pluritemporality. As actors make experiences while finding themselves in the flow of time, they both embrace temporally complex settings as well as they experience a pluritemporal present. Focusing on both horizontal and vertical ‘durée’ allows us to explain how actors experience and process multiple temporalities at once. This perspective thus contributes to questions of how actors and organizations are able to deal with temporally complex situations and how they enact pluritemporality.

Finally, this dissertation also allows for some practical implications and recommendations. First of all, it highlights the relevance of time for today’s organizations. As the world is becoming more and more complex (Kunisch et al., 2021) and social life is continuously accelerating (Rosa, 2013), organizations have to embrace these temporal changes and related challenges. Climate change and other (long-lasting and large-scale) crises such as pandemics or refugee movements challenge organizations to address, react to, and cope with these new and changing temporalities. As the findings of this dissertation show, it is central for organizations to reflect upon, actively embrace, and purposefully shape and manipulate their temporal structures and temporal practices to build and enact idiosyncratic temporalities and remain ‘masters of their time’. By consciously organizing time and temporality, organizations and organizational actors are then able to ensure long-term sustainability (Bansal & DesJardine, 2014; Kim et al., 2019), achieve temporal autonomy (Geiger et al., 2021), and flexibly respond to and shape the temporal demands of their environment (Blagoev & Schreyögg, 2019). Furthermore, this dissertation emphasizes the importance of organizations to shape and reflect upon their past, present, and future. As past, present, and future are not externally given on a timeline but are socially constructed, malleable events (Blagoev & Kremser, 2023), organizations and organizational actors also have the ability to frame these temporal realms. This enables organizations to create and determine how particularly their own yet also their environment’s past and future are perceived and which visions and interpretations should be foregrounded and backgrounded (Danner-Schröder, 2020; Hernes & Schultz, 2020). Actively engaging in these processes then allows organizations not only to define and establish visions of desirable futures (Gümüsay & Reinecke, 2022; Rindova & Martins, 2022) but also to specify how these visions influence the organization’s identity (Schultz & Hernes, 2013) or strategy (Rindova & Martins, 2023).

5 Limitations and Future Research

Certainly, this dissertation also entails a set of limitations that, however, can inspire new avenues for future research, novel research questions, and methodological development.

From a methodological perspective, studies on time and temporality generally face the challenge that they aim to explain time and temporality (or any form of it, e.g., temporal structures or temporal flux) as organizational phenomena while researchers simultaneously find themselves as being temporally embedded not only in their own, personal time yet also in the research context (Feuls et al., 2023). Particularly in studies that rely on observation, this represents a double-edged sword for researchers (Dawson, 2014). Whereas this dissertation focuses on specific organizational problems, such as the coordination of multiple routines in the context of a long-lasting crisis, there are different temporalities prevalent within this research setting: Routine participants enact routines with idiosyncratic temporalities, the crisis itself unfolds in a unique temporality, and the researchers observe and interpret their data within unique temporal experiences. Thus, there are multiple prevalent temporalities that coexist within this research setting and interact with each other (Feuls et al., 2023, p. 117). To make these multiple temporalities more visible and accountable, Feuls et al. (2023, p. 103) have developed the notion of *temporal reflexivity*, i.e., a reflection about the "temporal assumptions and their performativity in the research process". While the authors already highlight the relevance of reflecting on the assumptions, norms, and biases underlying research on time, this dissertation encourages researchers to further engage in novel and creative approaches to incorporate and challenge the temporal multidimensionality that characterizes temporal research. Research should include not only the temporal dimension of the phenomenon itself, yet also consider the temporal dimensions of the experiences that are necessary to observe the phenomenon and to interpret it.

Furthermore, understanding time and temporality within a process perspective highlights their flowing character and evolution (Hernes, 2014). Especially when conceptualizing the philosophical underpinnings of time with Bergson's theorizing, as this dissertation does, its continuous flux becomes foregrounded (Bergson, 2013; Linstead, 2014). However, research has shown that organizational becoming and temporal flow also unfold in a spatial realm that shapes and determines organizational reality (Pentland, Mahringer, Dittrich, Feldman, & Wolf, 2020). Organizational routines, for example, are understood as processes that are enacted through *situated* activity (Feldman, Pentland, D'Adderio, & Lazaric, 2016). They, thus, unfold in a spatio-temporal realm that also shapes how their enactment is described. Further

disentangling the linkages and relationships between the temporal flow and the spatial manifestation of organizing could provide promising avenues, particularly for the theoretical development of future research.

Finally, focusing on the enactment of time, temporal structures, and past, present, and future oftentimes highlights their continuous becoming in the passage of time, yet conceals the emotional characteristics their momentary experiences might entail. When organizations create desirable futures, it is closely connected with a sense of hope for these futures. Also, routine participants might experience urgency and thus pressure to act quickly when new Ebola cases are detected. Although these emotional characteristics could be essential to explain *why* organizations and organizational actors act and *why* they decide to coordinate their actions in a particular way, they are not yet taken into consideration in research on time and temporality. Considering the intensity of momentary experiences hereby might offer potential opportunities for future research.

Overall, this dissertation provides significant insights and answers to specific research areas on time and temporality in organizing but also generates novel questions and research gaps. By recognizing these unresolved theoretical and methodological puzzles, this dissertation contributes to the future development of the field and aims to highlight starting points for challenging and developing existing knowledge.

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Article I

Time Is Like a River:
Introducing Bergson's Notion of 'Durée' to Extend the Theorization of Time in Process Organization Studies

Lisa Harborth

Abstract

This paper challenges current understandings of time and temporality in process organization studies. By building on Bergson's notion of 'durée', the paper develops a more nuanced and differentiated understanding of temporality. It introduces the notions of horizontal and vertical 'durée' that allow to grasp the duality of moments and flow in time, and describes temporality with a duality of continuous observation and momentary experience. Whilst horizontal 'durée' depicts the observation of the perpetually evolving flow of time in a dynamic unity, vertical 'durée' explains the experience of time through the consideration of the immanent qualities of its single moments. This differentiation shifts the focus from understanding time through its passage and flux towards the consideration of its vertical depth, allowing to grasp the momentary intensity of each experienced moment. This novel perspective allows to incorporate emotions and bodily experiences as part of the temporal experience and realm of organizing. Also, it contributes to the understanding of temporal multiplicity as an immanent characteristic of organizational becoming.

Keywords temporality, duration, process organization studies, temporal intensity

Introduction

Time is a songbird, and just like any other songbird it can be taken captive.
It can be held prisoner in a cage and for even longer than you might think possible.
But time cannot be kept in check in perpetuity. No captivity is forever.

(Elif Shafak: The Island of Missing Trees, p. 5)

With the emergence of process organization studies, the common understanding of organizations has tremendously been shaken around (Langley & Tsoukas, 2016a; Langley, Smallman, Tsoukas, & Van de Ven, 2013; Tsoukas & Chia, 2002). Process organization studies highlight the becoming of organizations (Tsoukas & Chia, 2002), conceptualizing organizations as "sites of continuously changing human action" (Tsoukas & Chia, 2002, p. 577) and questioning how organizing unfolds in and through time (Hernes, 2014). Thus, time represents an "inescapable reality" (Langley & Tsoukas, 2010, p. 10) within this theoretical perspective that allows to describe how change is performed *in* time (Tsoukas & Chia, 2002, p. 572), how phenomena *temporally* evolve (Langley & Tsoukas, 2010, p. 2) as well as how phenomena are "made relevant in concrete situations *over time*" (Tsoukas & Chia, 2002, p. 578; emphasize added). Hence, theorizing organizations from a process perspective is inseparably interwoven with grasping the theoretical underpinnings of time. It requires to dismantle the nature of time in order to fully unravel how processes evolve.

However, although time plays such a fundamental role in understanding how organizing unfolds, it is mostly considered as endowing order to the phenomena under study (Hernes, 2014). Throughout the course of this paper, I will show that process organization studies focus on how phenomena change and become in and through time, yet do not fully explore the immanent characteristics and dynamics of time and temporality themselves. Time mostly remains exogenous to the understanding of processes and organizing by maintaining a descriptive character. Hence, time does not become phenomenon of observation and description itself. This understanding of time and temporality, however, neglects the theoretical richness that, for example, Bergson (2013, 1950, 1922) introduces in his process philosophy. To approach it as the substantive phenomenon it represents in process theorizing (Helin, Hernes, Hjorth, & Holt, 2014), this paper extends on the theoretical underpinnings of time within process philosophy. It particularly builds on Bergson's (1950, 1929, 1922) theorizing, and especially on the notion of 'durée' (Bergson, 2013, 1929), to develop a more nuanced and articulated understanding that helps to sharpen how we conceptualize time in organizational becoming. In doing so, the paper aims to engage in what Cornelissen et al. (2021, p. 10) have

called “perspectival theorizing”. By translating the understanding of time in process philosophy to the theorizing of process organization studies, this paper aims to “redirect a line of inquiry into an interesting and theoretically promising direction” (Cornelissen et al., 2021, p. 10). By integrating and expanding on Bergson’s notion of ‘durée’, the paper will deepen the currently predominant conceptualizations of time in process theorizing. It will allow to differentiate between the temporal flow of organizational becoming and the temporal intensity in which this organizing unfolds. By introducing the notions of vertical and horizontal ‘durée’, the paper aims to grasp and uncover processual becoming not only as an evolutionary flow yet also as unfolding in the moment of its observation. Whilst horizontal ‘durée’ is close to the current theorizing of a strong process perspective, vertical ‘durée’ extends the current understanding by elucidating how single moments of becoming unfold. It describes the extension and contraction of single moments of processual becoming, therefore allowing to further reflect on the dynamics and characteristics of these moments in the flow of processes. The paper thus extends the current theorizing by introducing a more differentiated perspective on temporality in organizational becoming, allowing to consider both processuality as well as momentary experiences of this flow.

To do so, this paper is structured as follows: First, it shortly introduces the two main perspectives in process organization studies and elaborates how they conceptualize time. Furthermore, it engages in some criticism that allows to dismantle why these understandings are lacking a theoretical backbone. Second, to provide a more nuanced perspective on time, the paper outlines Bergson’s idea in detail, particularly elaborating on his notion of ‘durée’. Lastly, the paper draws back on the criticism of the current understanding of time in process organization studies to elaborate how these can be resolved. To do so, it particularly incorporates Bergson’s understanding of ‘durée’ to elaborate how process organization studies not only consider time as a descriptive characteristic yet rather consider it as essential for its theorizing.

(Re-)considering Time: Organizing as Processual Becoming

Studying organizations from a process perspective shifts the focus from the entity that defines an organi*zation* to the continuous change characterizing the act of organi*zing* (Bakken & Hernes, 2006; Hernes, 2014; Weick, 1979). It points to the becoming of organizations, thereby concentrating on the assembly of “ongoing interdependent actions into sensible sequences that generate sensible outcomes” (Weick, 1979, p. 3). Hence, studying organizations from a process perspective highlights the “dynamic bundle[s] of qualities” (Langley et al., 2013,

p. 5) that characterize their ever-changing character. Flow, change and becoming are hereby considered as the onto-epistemological foundation of reality (Tsoukas & Chia, 2002) through and in which organizational phenomena evolve and become (Hernes, 2014; Langley et al., 2013).

Within this theorizing, two major ontological perspectives have developed that differ in their understanding how organizing unfolds and which questions are to be answered: the synoptic/weak and the performative/strong process perspective (Langley & Tsoukas, 2016a, pp. 3-4). As the weak process perspective is still close to understanding organizations as entities, it focuses on explaining how these entities evolve from one rather stable or persistent state to another state over the course of time (Bakken & Hernes, 2006; Langley & Tsoukas, 2016a, p. 3). Thus, organizing as a process is understood as a *development* of organi*zations*, describing its status in two points in time that are being chronologically ordered within a unidirectional flow (Langley & Tsoukas, 2016a). This perspective is mainly concerned with the "ontology of time" (Hussenot, Hernes, & Bouty, 2020, p. 50), thus questioning time as an external and standardized dimension that allows to endow order to the development of processes. It renders time to a one-sided arrow that reflects the (temporal) order of things. Hereby, temporality is only endowing order and structure to explain *when* a certain phenomenon is observed, yet without explaining *how* it evolves over time. This perspective offers explanatory value to understand how these states of being are connected and when these connections unfold, yet it does not allow to explain how organizing as a phenomenon evolves nor how time itself is enacted, unfolding or changing through this organizing. Therefore, although time remains important for the weak process perspective, this perspective renders time to an instrument to describe the development of organizational phenomena from state A to state A'. Time hereby functions to separate and distinguish these different events from each other by providing a chronological order (Reinecke & Ansari, 2016, p. 404). However, as this perspective is not focusing on the onto-epistemological foundations of time itself but rather rendering time to a purely functional instrument, it will not be further considered in the course of this paper.

In contrast, the strong process perspective focuses on explaining the becoming of organizations. It is rooted in process metaphysics (Bergson, 1946; Whitehead, 1929), and considers becoming and change as its ontological reality (Bakken & Hernes, 2006; Deleuze, 1988; Langley & Tsoukas, 2016a; Tsoukas & Chia, 2002). Research within this perspective evolves around questions of how experiences progress and how phenomena perpetually evolve (Langley et al., 2013), thereby understanding organizations as being "*made* to work" (Tsoukas

& Chia, 2002, p. 577; emphasize in original). As this perspective relies on continuous change rather than on stable entities, time also plays a more substantial role than in the weak process view. The strong process view focuses on the "ontology of temporality" (Hussenot et al., 2020, p. 50), thereby questioning how past, present, and future unfold and evolve in the making of processual becoming. Temporality is hereby considered inherent to the nature of becoming and is therefore omnipresent in the strong process view (Hernes, 2014; Langley & Tsoukas, 2010, p. 5). Here, time is conceptualized as a "synthesis" (Langley & Tsoukas, 2016a, p. 6) of past, present, and future that unfolds in the present moment of experience. It thus highlights and explains how organizational phenomena evolve and change *through* time, thereby focusing on the evolution of phenomena rather than on the development of states. Thus, as organizational phenomena evolve and change, time unfolds in consonance with it. Time is hereby understood as "nonlinear, qualitatively determined, and endogenous to events and processes" (Reinecke & Ansari, 2016, p. 404), allowing to understand the becoming of organizational phenomena as inherently intertwined with the temporal flow. Time and temporality, thus, represent immanent characteristics of the strong process perspective. Considering these allows to shed light on the evolution of organizational phenomena in an undisrupted flow of becoming. Without time and temporality, there would be no change and no becoming.

Challenging Current Views on Time in Process Theorizing

However, despite being embedded in process philosophy, also the strong process view on organizing lacks the theoretical richness in understanding and conceptualizing time that forms the ground of process philosophy (e.g., Bergson, 1922, 1929, 1950). Although it encompasses a temporal view on organizing as it observes and describes how organizational phenomena evolve and become, the related understanding of time is still simplistic (Hernes, 2014, pp. 35-36). Although understanding organizing as evolving *in*, *over,* and *through* time (Hernes, 2014; Langley & Tsoukas, 2016a, 2016b; Langley et al., 2013; Tsoukas & Chia, 2002) enables to conceptualize the evolution of organizational phenomena in relation to and interrelated with time, this perspective oversees the immanent qualities of temporality itself. Processual qualities of organizing are ascribed *to* time and temporality without integrating and embedding questions about time into the observation and description of organizational phenomena. In the following, I will outline this argument in more detail by elaborating three points of critique on the current status quo in process theorizing.

First, process organization studies tend to separate processes from temporality, thereby **instrumentalizing time to observe and describe organizational change**. Despite the

articulated understanding of temporality as an "intrinsic part of the very process being studied" (Reinecke & Ansari, 2016, p. 406), process organization studies question "how managerial and organizational phenomena emerge, change, and unfold *over time*" (Langley et al., 2013, p. 1; emphasize added). This understanding of processes explicitly highlights their becoming *in*, *over,* and *through time* (Feldman & Pentland, 2003; Reinecke & Ansari, 2016; Tsoukas & Chia, 2002), thereby operationalizing temporality as a separated phenomenon from the very processes that are being studied. Time remains disconnected from the processes themselves as it provides an instrument to observe, describe, and research how organizational phenomena unfold in the course of time yet time is not considered as a phenomenon of study itself. Although the tendency to ascribe temporality through the x-axis is criticized (Reinecke & Ansari, 2016, p. 406), the ontological nature of temporality remains overlooked (Hernes, 2014, p. 31) and is thus rendered an exogenous instrument to describe processual becoming in most studies. Research questions often consider time and temporality as a separated phenomenon that allows to describe how and when change occurs without considering the internal dynamics of temporality itself. The summary of research questions presented in the introduction to the special issue "Process studies of change in organization and management: Unveiling temporality, activity, and flow" in the Academy of Management Journal (Langley et al., 2013, pp. 2-3) reflects this tendency. For example, Gehman et al. (2013) study how moral values emerge and how they are performed *over time*. Although the authors adopt a strong process view on value work, being "continually constituted and adapted" (Langley et al., 2013, p. 5), their study once again observes how an organizational phenomenon evolves over time. Also, McKay and Chia (2013) reflect on organizational becoming by depicting temporality through time periods during which change evolves (see figure 1: MacKay & Chia, 2013, p. 222). These studies provide typical examples of how organizational becoming and change is observed separately from temporality. They, however, dismiss the intertwinement of processuality and temporality that yet provides the foundation to understand the meaning of becoming (Hernes, 2014, p. 40).

This segregation of processual becoming from temporality leads to a second shortcoming. As process organization studies observe and explain how organizational phenomena evolve in relation to time, they **render temporality a dynamic singularity**. Studying how phenomena evolve in and over time only requires the consideration of one time, as this is sufficient to sequence or order how these observed phenomena change. Process organization studies tend to emphasize a notion of time that is similar to the one represented by longitudinal studies, rather than reflecting the understanding that is represented in process philosophy (Hernes, 2014, pp. 35-36). Even the recognition that time evolves in relation to its context, therefore allowing the

possibility of multiple pasts, presents, and futures (Reinecke & Ansari, 2016, p. 404), eventually describes the flow of time within one, singular characteristic. For example, Reinecke and Ansari (2015) research how different temporalities lead to temporal brokerage and therefore a collision in inter-organizational collaborations. Whilst their process model of temporal ambidexterity recognizes a temporal multiplicity leading to temporal conflicts, they still describe each of these different temporalities as singularities. Clock- and event-time are hereby understood as dichotomous, dismissing their dualistic character (Geiger, Danner-Schröder, & Kremser, 2021; Orlikowski & Yates, 2002). Only by ascribing these particular temporal characteristics as separated and inconsistent with each other, these different temporal understandings create competing temporal structures. Hence, rather than recognizing temporality as unfolding in multiplicities and with diverse characteristics and dynamics, their understanding relates to one, singular time that describes processual evolution.

The last point of criticism rests in the recognition that process organization studies focus on the perpetual becoming of reality without considering how this becoming is experienced. Process organization studies therefore **do not explain how present experiences become part of the perpetual flow of reality**. Processes are understood to continuously unfold and evolve, yet their understanding can only be described from a present perspective. In consequence, temporality is understood as a temporal synthesis, accumulating past, present, and future in the present moment (Langley & Tsoukas, 2016a, p. 6). The past hereby provides "malleable memories" (Reinecke & Ansari, 2016, p. 405), unfolding as a "constantly shifting sea of meaning that gets reconfigured every time we invoke it" (Bakken, Holt, & Zundel, 2013, p. 16). Hence, temporality as a whole as well as past, present, and future in their specific characteristics are understood to disclose themselves in and through the present moment. Experiences find themselves embedded in the present moment, continuing "what has previously been" (Cobb, 2016, p. 568) to then form the flow of time. This perspective aligns with a practice-perspective (Feldman & Orlikowski, 2011; Sandberg & Tsoukas, 2011) that focuses on the question "how the past is drawn upon and made relevant to the present" (Langley et al., 2013, p. 5). It therefore emphasizes the temporal embeddedness of the process in the present moment without explaining how this present becomes part of the perpetual becoming of reality. Especially experiences and descriptions of present moments, although informed by the past, determine the understanding of how organizational phenomena temporally evolve, and therefore also how temporality is understood. This, however, is problematic, because "the present must pass *at the same time* as it is present" (Hodges, 2008, p. 411; emphasize in original), rendering itself intangible.

These elaborations demonstrate that, although the strong process perspective builds on process philosophy as its metaphysical roots, and hence recognize temporality as a central notion for its theorizing, it does not yet unleash the full potential of the temporal ontology. Its understanding of time remains undertheorized and simplistic, dismissing a theoretical richness as developed, for example, by Bergson (1929, 1950, 1922). Temporality represents "chiefly a *constitutive*, not a focal aspect of the theoretical apparatus" (Hodges, 2008, p. 401; emphasize in original). In the following, this paper therefore focuses on how process philosophy, especially Bergson's theoretical perspective, conceptualizes temporality and how these assumptions change the understanding of time in process organization studies.

It Is All Duration: Temporality in Bergson's Process Philosophy

Throughout his oeuvre, Bergson's philosophical reflections evolve around temporal notions such as 'evolution' (Bergson, 1922), 'memory' (Bergson, 1929), and 'durée' (Bergson, 2013, 1950, 1922), and therefore support his continuous discussions on the processual characteristics of life. In doing so, he develops an understanding of reality as "perpetual becoming" (Bergson, 1922, p. 287) that provides the foundation for a nuanced and multi-faceted understanding of time and temporality as central for this encompassing process. Particularly essential for Bergson's theorizing is hereby the notion of 'durée' (Bergson, 2013, 1950, 1922), constituting a basic understanding of how reality unfolds as well as how we experience it.

'Durée' as a Duality of Moments and Flow

Bergson's onto-epistemological considerations about reality fundamentally build on the notion of 'durée' (Bergson, 2013). In his understanding, 'durée' both represents an understanding of an ever-flowing reality as well as the psychological experience allowing us to perceive this reality (Bergson, 1946). It simultaneously represents a continuous becoming of reality as well as it describes that this reality is experienced in a multiplicity of single moments:

> *If I try to* analyze *duration, that is, to resolve it into ready-made concepts, I am certainly obliged by the very nature of the concept and the analysis, to take two opposing views of* duration in general*, views with which I shall then claim to recompose it. This combination can present neither a diversity of degrees nor a variety of forms: it is or it is not. I shall say, for example, that there is, on the one hand, a* multiplicity *of successive states of consciousness and, on the other hand, a* unity *which binds them together. Duration will be the 'synthesis' of this unity and multiplicity […].* (Bergson, 1946, pp. 217-218; emphasize in original)

What Bergson hereby describes as a unity represents his understanding of how reality unfolds. He delineates that the world is in an ever-becoming flow, therefore unfolding in a

continuous process of change. Simultaneously, however, Bergson acknowledges that our experiences of this reality remain in a multiplicity of single moments. Here, Bergson builds on the assumption that without these multiple experiences, reality would withdraw itself from existing (Bergson, 1922, p. 287). Each experience we make allows us to observe, create, and describe this unity of 'durée' as an ever-changing flow whilst it is simultaneously co-created through our experiences. Hence, 'durée' inevitably reflects this duality of a uniformly flowing reality and the multiplicity of experiences through which we perceive this reality.

However, whilst the ontological reality of 'durée' represents itself in a unity, the multiplicity of the psychological experience of 'durée' not only unfolds in the multitude of experiences we make one after another, but rather also captures the multiplicity of 'durée' within each of these experiences. According to Bergson (1929), we make experiences by drawing on our consciousness (of the present) and our memory (of the past) (Deleuze, 1988, p. 51). Memory hereby is understood as "the principal share of individual consciousness in perception" (Bergson, 1929, p. 25) that covers our present perception with a "cloak of recollections [whilst] contracting a number of external moments into a single internal moment" (Bergson, 1929, p. 25). Hence, Bergson's understanding of memory refers to the idea that each moment of present experience builds on a multiplicity of experiences from the past. Through our memory, these experiences are drawn into the present moment, allowing our consciousness not only to grasp the immediate present but also to embed this present into the ongoing flow experiencing:

> *However brief we suppose any perception to be, it always occupies a certain duration, and involves consequently an effort of memory which prolongs one into another a plurality of moments.* (Bergson, 1929, p. 25)

To elucidate these differences more specifically, Bergson refers to experiences from the past (as well as in anticipation of the future) as "virtual" experiences whilst experiences from the present moment reflect an "actual" experience (Bergson, 1929, p. 168). Consequently, these virtual experiences unfold in multiplicity as (at least theoretically) they can entail an endless number of experiences remembering the past or anticipating the future. Thus, the moment an actual experience is made in the present, this experience is transformed into a virtual experience through our memory (Deleuze, 1988, p. 51), constituting to the ever-changing flow of 'durée'. Thus, when Bergson considers 'durée' as a psychological experience, he not only describes the actual observation of the present moment but also the virtually existing memories and anticipations. Thus, every single experience unfolds in the duality of its own, actual existence, and its inevitable transience. It simultaneously comprises the pure moment of experience as well as a multiplicity of virtual moments derived from our memory.

However, this idea that our perception comprises actual moments of experience as well as virtual moments from our memory leads to a succeeding problem. According to Bergson, making experiences results in the immobilization of single moments (Bergson, 1929, p. 275), creating a "series of pictorial, but discontinuous, views of the universe" (Bergson, 1929, p. 76). In consequence, we perceive a multiplicity of quantitative, homogeneous and independent moments in time that eventually disregard the continuous character of 'durée' (Bergson, 1929, p. 275). Thus, our perception deceives the nature of these moments as continuous as they appear to unfold in a multiplicity of single, separated entities. If, however, we recognize the continuous character of 'durée' that is immanent to each experience, this quantitative separation is exposed as artificial (Bergson, 1950, p. xxiii). Embedding these apparently separated moments in time in the ever-changing flow of 'durée' is only achieved by acknowledging that every actual experience in the present entails both a multiplicity of virtual experiences from past and future whilst simultaneously being transformed to our virtual memory in the moment of its actualization: "Our perceptions are undoubtedly interlaced with memories, and inversely, a memory […] only becomes actual by borrowing the body of some perception into which it slips." (Bergson, 1929, p. 72). Thus, the duality of single moments in time and the overarching flow of reality both representing 'durée' unfold in a double layer (Bergson, 1946, p. 218). In order for 'durée' to become ever-flowing, it needs to entail both single moments of experiences as well as a continuous evolution of these experiences from anticipation to memory through acts of perception and recollection that "always interpenetrate each other, […] exchanging something of their substance as by a process of endosmosis" (Bergson, 1929, p. 72). Only as these acts of perception and recollection are intertwined with each other, the process of 'durée' is able to unfold. Thus, 'durée' is not just the perception of reality or just reality itself but only comes into being through the synthesis of the unity that represents its ontological reality and its multiplicity that characterizes its experience.

The Multiplicity of 'Durée' as Qualitative Heterogeneity

The duality of this simultaneous unity and multiplicity of 'durée' is subject to continuous discussions within Bergson's work (Bergson, 2013). Although throughout his oeuvre, he comes to different conclusions about the character of this duality (Deleuze, 1988, pp. 76-81), particularly his perspective on the notion of multiplicity is essential. Contrary to the common understanding, Bergson conceptualizes multiplicity not as a numeric plurality but rather as a qualitative variety:

> *Below homogeneous duration, which is the extensive symbol of true duration, a close psychological analysis distinguishes a duration whose heterogeneous moments permeate one another; below the numerical multiplicity of conscious states, a qualitative multiplicity; below the self with well-defined states, a self in which succeeding each other means melting into one another and forming an organic whole.* (Bergson, 1950, p. 128)

Thus, according to Bergson, there is a difference between a quantitative multiplicity, being represented through a "numerical multiplicity of conscious states", and a qualitative multiplicity, in which experiences are "melting into one another and forming an organic whole". Although our consciousness simulates the existence of a multiplicity of different, immobilized, and thus countable states of being, the pure nature of 'durée' implies an immanent continuous evolution (Bergson, 1950, p. 121). The related multiplicity therefore does not result from a quantitative distinction, as this reflects an artificial observation, but rather from a qualitative change between moments of different intensities (Bergson, 1950, pp. 121-122). Thus, when Bergson talks about multiplicity, he refers to a qualitative multiplicity. Each actual experience entails its own accumulation of virtual experiences, remembering the past and anticipating the future. Therefore, each actual experience unfolds within a unique character and, thus, also intensity. In consequence, also distinguishing between those experiences unfolds by reflecting about these different characters and intensities (Bergson, 1950, p. 123). 'Durée' unfolds as a continuous multiplicity that although it inhabits an overarching unity, comprises a multiplicity of qualitatively different moments: "In reality there is no one rhythm of duration; it is possible to imagine many different rhythms which, slower or faster, measure the degree of tension or relaxation of different kinds of consciousness, and thereby fix their respective places in the scale of being." (Bergson, 1929, p. 275). These different rhythms, tensions, and relaxations characterize each moment of 'durée', leading to a variety of intensities in its overarching flow. Each moment is thus shaped by unique attributes which create a dynamically unfolding and ever-changing process. Hence, when we experience "durations of different tensions" (Bergson, 1929, p. 275), these unravel themselves as changing intensities of different moments, yet continuously unfolding into each other. Hence, Bergson's understanding of multiplicity reflects these qualitative differences, allowing to embrace change as a continuous evolution of intensities.

Understanding multiplicity through these qualitative differences results in a second characteristic of 'durée'. Rather than representing a homogenous time (Bergson, 1929, p. 280), 'durée' represents a heterogeneity of different experiences:

> *The qualitative heterogeneity of our successive perceptions of the universe results from the fact that each, in itself, extends over a certain depth of duration, and that memory condenses*

> *in each an enormous multiplicity of vibrations which appear to us all at once, although they are successive.* (Bergson, 1929, pp. 76-77)

It is this "depth of duration" that allows 'durée' to develop these heterogeneous intensities, unfolding in every moment of the overarching flow of reality. Yet, as each actual experience comprises a multiplicity of virtual experiences from past and future, this depth stretches further, thereby contributing to the heterogeneity of 'durée' within every single experience we make. Thus, the multiplicity of 'durée' not only comprises a qualitative multiplicity, as 'durée' unfolds in continuity, but also a qualitative heterogeneity, as 'durée' comprises a multiplicity of virtual experiences within one actual experience (Bergson, 1946, p. 218).

Flowing Like a River: Theorizing Horizontal and Vertical 'Durée' to Understand the Immanent Characteristics of Time

When now transferring these insights onto the current process theorizing, it becomes clear that this nuanced understanding of duration and therefore of time does not yet play a role in process organization studies. However, as I will argue in the following, taking Bergson's ideas into account will allow us to further differentiate the understanding of time in organizational becoming as well as to enhance the theoretical reflections on how time-related phenomena evolve and change. By building on Bergson's theorizing, I will introduce a differentiation between the notions of horizontal and vertical 'durée'. Coming from the understanding of 'durée' as a continuous flow, horizontal 'durée' describes its perpetually evolving nature, creating a horizontal and dynamic temporal flux. Contrasting thereto, vertical 'durée' describes the psychological experience of 'durée', highlighting its momentary character. It allows to grasp its immanent qualities, leading to a consideration of time through its qualitative depth.

Horizontal 'Durée': The Momentary Observation of Continuity

Following Bergson's thinking first of all highlights the continuous character of 'durée'. Understanding 'durée' as a perpetual becoming of reality, and thus grasping time as ever-changing and evolving, enables to describe it as a continuum. Although Bergson recognizes that 'durée' comprises a multiplicity of single moments, he emphasizes that it unfolds in a continuous process that remains ever-changing and indivisible in its essence (Bergson, 1929, p. 72). To better grasp this understanding, we can draw to the metaphor of a river. The stream of a river is an unstoppable, perpetual flow. It might change in speed and strength when it falls faster or slower, when rocks or other objects hinder its way, when high or low tide change its stream, yet it remains an inseparable and endless flow. Observed from the outside, this stream,

although we know it contains an uncountable number of single waterdrops, appears in full unity. It flows, it progresses, yet it always continuous (more or less) horizontally. We can only see its surface, running through the riverbank, yet can only guess what is beneath it. By observing this river, we can only describe its breadth. Thus, as 'durée' unfolds, it creates a horizontal stream which dynamically flows yet hides what is beneath it. Although it comprises a multiplicity of single moments, its observation only reveals its continuous flow and dynamic evolution.

This metaphor can be transferred to better grasp the notion of *horizontal 'durée'*, i.e., the observation of the perpetually evolving flow of time in a dynamic unity. As 'durée' unfolds through a multiplicity of single moments with unique characteristics (i.e., dynamics), it creates an undisrupted, continuous, yet ever-changing flow of horizontal evolution (i.e., a unity). It spreads and evolves in an ever-changing process of multiple, singular moments whilst remaining an indivisible whole. Horizontal 'durée' characterizes the unfolding of temporality through its heterogeneous dynamics whilst maintaining its cohesion through its processuality. Hereby, time unfolds in a dynamic unity.

This understanding resonates with the core basic assumptions about time in process organization studies. Here as well, temporality is considered as ever-flowing and becoming, allowing to grasp the evolutionary change of organizational phenomena. Change is thus considered as evolving through time as time itself becomes through the process. Hence, temporality is understood as dynamically unfolding, allowing to grasp the processual becoming (Hernes, 2016). In doing so, process organization studies focus on questions of how organizational phenomena are enacted in time (e.g., Geiger et al., 2021; Orlikowski & Yates, 2002), how organizing becomes and changes through time (e.g., Hussenot et al., 2020; Tsoukas & Chia, 2002), how past, present, and future evolve in organizational becoming (e.g., Danner-Schröder, 2020; Hernes & Schultz, 2020) or as well how longitudinal phenomena evolve over and through time (e.g., Langley, 1999). However, organizational becoming is hereby depicted as evolving in and through time whilst its observation neglects the immanent characteristics of time itself, as particular qualities withdraw themselves from the observation. Observing a river from the outside allows to describe its surface as well as its dynamics, yet hides its underlying qualities. It focuses on the evolution of time-related phenomena without considering where these phenomena evolve from and what their particular characteristics are. This also holds true for the observation of organizational processes and their immanent temporalities. Observing these from the outside allows to describe their flow, yet hides the qualitative and heterogeneous characteristics that unfold below the surface.

Integrating this notion of horizontal ‘durée’ in the understanding of organizational becoming, however extends the understanding how temporality evolves. Rather than depicting time as a dynamic singularity that helps to instrumentalize organizational change as a continuous becoming (Tsoukas & Chia, 2002), temporality is hereby fundamental to grasp this change. Horizontal ‘durée’ allows to observe time as a continuous evolution of single moments, and thus unveils novel ways of understanding the ever-changing continuity of momentary elements in organizational becoming. As it is understood to unfold in the duality of moments and flow, horizontal ‘durée’ rests on the recognition that time can only be observed in its continuity through momentary experiences. Each observation that allows to grasp, describe, and define organizational becoming requires a momentary stabilization of these experiences, therefore contributing to the momentary evolution of this flow. These momentary stabilizations, however, do not describe stable or static entities, as the weak process perspective would assume (Langley & Tsoukas, 2016a), but rather unfold in this ever-changing processuality themselves (Bergson, 1946, p. 218). In doing so, they create the qualitative heterogeneity that is characteristic for the evolution of ‘durée’ (Bergson, 1929, p. 76). This qualitative heterogeneity is itself recognized through the varying intensities that are fundamental for the dynamics of this flow. Understanding organizational becoming thus does not require the instrumentalization of time but rather rests on the dynamic characteristics of this temporal unity. It thus unfolds in varying intensities that then allow to differentiate their momentary observations from each other, thereby creating a momentary idea of how the related processes looks like in certain points in time. Hence, observing organizational becoming requires to describe these momentary observations of temporal continuity (Hernes, 2014). In order to grasp this continuity, we automatically build on the observation of momentary intensities (Schultz & Hernes, 2023). These intensities then allow to differentiate their becoming from each other, therefore creating a momentary structural idea of how the related processes look like in certain points in time.

Vertical ‘Durée: The Continuous Experience of the Moment

In order to deep dive into these single moments of becoming, we, however, have to shift the perspective towards their immanent characteristics. Here, particular Bergson’s understanding of ‘durée’ as a psychological experience is essential, as it determines that our experience of time unfolds through a multiplicity of qualitatively heterogeneous moments (Bergson, 1950, p. 128). Hence, whilst time unfolds in dynamic unity, understanding its immanent characteristics requires to immerse into these momentary experiences. Coming back to the metaphor of the river, it uncovers that our observations from outside only unravel the river’s surface. However,

by diving below its surface, we can take a closer look below the water. Here, we can no longer observe the river as a dynamic unity that is revealed from above but we are rather able to experience its depth. By looking under the surface, this dynamic unity vanishes and the hidden characteristics of the river are revealed in detail. Diving below the surface might show us how deep the river is, how clear the water is, how the riverbed changes its conditions, which fishes and plants are living here, where there are rocks or other things, and so on. We also still feel the water of the river, yet it is impossible to see it apart from the sediments it contains. Hence, by looking below the surface and experiencing the river, it loses its characteristic of a dynamic unity and rather reveals its qualitative depth.

This understanding can be translated to the notion of *vertical 'durée'*, i.e., the experience of time through the consideration of the immanent qualities of its single moments. As 'durée' is experienced through a multiplicity of qualitative heterogeneous moments, each of these experiences entails a particular and unique intensity. Similar to the overarching flow, they also comprise their own 'durée', entailing and creating a vertical depth. Bergson hereby argues that the different moments of 'durée' encompass a multiplicity of other moments from past and future. By aggregating these, the experienced present moments then gain verticality as they are filled with a particular intensity (from the past and/or the future). Vertical 'durée' thus describes the qualities and intensities of the single moments that form the perpetual flow of temporality. It hence describes time through its qualitative depth.

This understanding departs from most of the common perspectives and conceptualizations in process organization studies. Whilst here, the focus on temporality mostly lies on explaining how organizational phenomena evolve and change in, over, and through time (Langley et al., 2013; Tsoukas & Chia, 2002), the immanent characteristics of the single temporal moments remain undiscussed. As I have argued above, process organization studies so far cannot explain how the experienced present moments become part of the overarching flow of becoming. Integrating Bergson's perspective, however, is an essential step to develop a more nuanced understanding of time in process theorizing and to explain how these momentary experiences contribute to and shape the becoming of temporality itself.

Integrating this notion of vertical 'durée' in the theorization of organizational becoming thus extends the understanding how experienced present moments become part of the overarching flow of temporality. Rather than extrapolating the observation of organizational phenomena from time (Langley et al., 2013), temporality is hereby experienced through these observations, and thereby essential for the processual evolution. Vertical 'durée' allows to grasp time in single

moments, and thus unravels novel ways of understanding how momentary experiences become part of the overarching flow of organizational becoming. As ‘durée’ reflects a psychological experience, its verticality derives from their respective intensities, leading to shifting characteristics of each moment. Each experience hereby grasps a momentary stabilization whilst simultaneously unfolding in and through ‘durée’ itself. In the preface to his book ‘Organization and Time’, Hernes (2022) describes this sensation with the help of Marcel Duchamp’s painting ‘Nude Descending a Staircase’. It depicts movement “through the intersection of the various body parts as they represent different points in time” (Hernes, 2022, p. v). Whilst focusing on single parts of the painting would create an impression of a static image, the interrelatedness of these part “make up a whole that conveys the impression of a moving body” (Hernes, 2022, p. v). Thus, by observing the painting as a whole, it allows to continuously experience the different moments of time without rendering these into distinct images (Bergson, 1929, pp. 76-77; 1950, p. 128).

Similarly, also respective characteristics that are often directly ascribed to organizational phenomena unravel themselves through particular temporal characteristics. For example, the understanding of urgency, commonly described as a state “when the time available for making a decision is short – relative to task complexity and the time required for implementing the selected options – but the decision faced is nonetheless important” (Wilson & Orlove, 2021, p. 65), changes when we do not consider urgency a question of measured time (i.e., “short”) but rather focus on the experienced pressure of actors. Integrating the notion of vertical ‘durée’ allows to grasp the momentary intensity of the actor’s experience rather than measuring the length between two points in time. In doing so, time can be understood to unfold in this qualitative depth, as each moment is not only part of the overarching flow (as understanding time as a dynamic singularity would assume) but also reflects particular dynamics (through characteristics and intensities) themselves. Understanding organizational becoming thus does not separate present experiences from the overarching flow but rather integrates these as part of its composition. Each of these experiences cause, describe, observe, and entail certain intensities, contributing to the overarching dynamics of the flow of time. Hence, experiencing organizational becoming allows to embrace and distinguish present experiences from the overarching temporal continuity without dismissing their embeddedness in the becoming of processes. In order to grasp this momentary continuity, we build on the description of varying intensities, revealing themselves through the qualitative depth of each moment.

Table 1 summarizes the main differences between horizontal and vertical ‘durée’. It clarifies each definition and the related focus, describes the core characteristics of multiplicity within

this perspective, provides examples and possibilities for an application and provides some examples that already incorporate these understandings.

	Horizontal 'Durée'	**Vertical 'Durée'**
Definition	The observation of the perpetually evolving flow of time in a dynamic unity	The experience of time through the consideration of the immanent qualities of its single moments
Focus	Observation of flow	Experience of moment
Core Characteristics of Multiplicity	Multiplicity of single moments of unique characteristics form an undisrupted, continuous flow	Multiplicity of qualitative heterogeneous moments unfold with unique intensities
Possibilities of Application	Organizational becoming and change; Continuity and patterning; Coordination in crises;	Bodily experiences such as stress, anxiety, boredom; Urgency; Acceleration and deceleration;
Examples	Feldman, Worline, Baker and Lowerson Bredow (2022); Geiger et al. (2021); Hernes (2014); Hernes and Feuls (2023); Schultz and Hernes (2023); Tsoukas and Chia (2002)	Helin (2023); Hernes (2022)

Table 1. Differentiation between horizontal and vertical 'durée'

The Interplay between Vertical and Horizontal 'Durée': Implications for Understanding Time in Process Organization Studies and Future Research Directions

Whilst these notions of horizontal and vertical 'durée' are represented separately above, their understanding is necessarily interlinked and intertwined with each other (Bergson, 1946). As horizontal 'durée' reflects the momentary observation of continuity, and vertical 'durée' describes the continuous experience of the moment, they create an interface at the concurrence of moment and flow. This interplay between the horizontal flow and the vertical depth of 'durée' is what allows to develop a more nuanced understanding of time in process organization studies, and thus also provides promising perspectives for future research.

As elaborated above, process organization studies explain the becoming of organizational phenomena in relation to time (Langley et al., 2013; Tsoukas & Chia, 2002). Integrating this interplay between horizontal and vertical 'durée' in the understanding of how organizational phenomena evolve now shifts the focus from explaining organizational becoming through time towards explaining organizational becoming *with* time. Whilst horizontal 'durée' hereby allows to elucidate the dynamic multiplicity of time in the course of organizing, vertical 'durée'

questions how each moment of this organizing is experienced. Yet, as horizontal and vertical ‘durée’ unfold in entanglement with each other (time continuously evolves whilst being experienced in single moments), they synthesize the duality of moments and flow within organizing itself. Studying how organizational phenomena evolve thus allows to both observe the continuity of temporality in order to describe their becoming as well as to reflect upon these single moments of experience and the question how these become part of the overarching flow. For the understanding of time in process organization studies this has two major implications: First, it allows to conceptualize time through the experiences of ‘durée’, thereby allowing to grasp the varying intensities that derive out of each moment of becoming. Second, as these experiences unfold in multiplicity both horizontally and vertically, it also entails the consideration of a temporal multiplicity in organizational becoming.

Experiencing Temporality in Organizing

Considering the interplay between horizontal and vertical ‘durée’ allows to shed light on both the overarching flow of temporality as well as on how this flow is experienced through a multiplicity of single moments. As Bergson (1929; Deleuze, 1988) argues, this multiplicity of single moments derives from the psychological experience of ‘durée’, where each moment entails a certain intensity and vibration. Focusing on these intensities of vertical ‘durée’ thus shifts the question from asking how organizing unfolds to how this becoming is experienced. Thus, it allows to focus on, for example, emotions and thoughts that derive out of these momentary experiences. This verticality of time is, as Helin (2023, p. 387) puts it, “anchored in the body. Time is no longer something pushed toward us and for us to manage. It is rather a force experienced within us.” Thus, rather than describing organizational phenomena over or through the course of time, this perspective emphasizes experienced temporality as it is deriving from the evolution of these organizational phenomena that are lived through organizational actors. It allows to integrate the experienced present moments into the continuous flow of time, and therefore questions an aspect of organizational becoming that has not yet been under discussion.

For process organization studies, this opens up several novel research directions. For example, questions of urgency are often attributed to the pressures coming from contextual factors, thereby examining how actors translate these pressures into the becoming of organizing (Granqvist & Gustafsson, 2016; Orlove, Shwom, Markowitz, & Cheong, 2020). Focusing on how these pressures are experienced in the moment of their becoming, however transforms the emphasis on the experience of this urgency. This shift, thus, enables to ask how the urgency’s

immanent intensity unfolds as well as how actors experience this intensity (through their emotions, thoughts, etc.). Intensity hereby represents the momentary depth of the temporal flow in and through the organization's or the actor's experience. In consequence, rather than explaining how organizational phenomena evolve and change within the context of limited time, questions aim to explore how this limited time of urgent moments unfolds and intensifies throughout organizational becoming. The interplay of vertical and horizontal 'durée' hereby helps to understand how a momentary experience unfolds with a high intensity (as the experiencing actors is sensing limited time to act) that yet unfolds in the continuous flow of becoming. In a similar vein, also questions of boredom (Costas & Kärreman, 2016), lacking motivation, anxiety or other temporal phenomena (Kunisch, Blagoev, & Bartunek, 2021) could be addressed. Thus, integrating this interplay of vertical and horizontal 'durée' and focusing on how temporality is experienced opens up paths for novel research questions: How do actors experience moments of organizational becoming? How do temporal experiences evolve through organizing? How do the momentary intensities of lived experiences in organizing unfold and change?

Temporal Multiplicity in Organizational Becoming

The second implication for the understanding of time in process organization studies lies in the consideration of multiplicity. Although multiplicity has already widely been considered in process organization studies (Cloutier & Langley, 2020; Linstead & Thanem, 2007; Pentland, Mahringer, Dittrich, Feldman, & Wolf, 2020), temporal multiplicity, especially from an emic perspective (Pentland et al., 2020, p. 2) of the actors' experiences, has not yet been taken into consideration. Considering the interplay between horizontal and vertical 'durée' yet hereby provides a promising path to change the way how multiplicity, and particularly, temporal multiplicity is understood. In general, 'durée' is conceptualized to unfold in a qualitative multiplicity of both momentary experiences as well as continuous becoming (Bergson, 1950, 1929). As horizontal 'durée' describes how we observe the continuous becoming of time in organizing, it provides a way of conceptualizing the multiplicity of observations made as it unfolds. Yet, as this remains an etic perspective (as it focuses on observations rather than on experiences), explaining temporal multiplicity only through the observations made reconfirms current theorizing in process organization studies (Cloutier & Langley, 2020). Contrasting thereto, embedding the understanding of temporal multiplicity within the interplay of horizontal and vertical 'durée' allows to shift the perspective towards an emic point of view. It allows to conceptualize multiplicity within the experience of time. As each observation made within the

overarching flow of horizontal ‘durée’ is deriving from the experiences made in the moment (through vertical ‘durée’), it enables to conceptualize temporal multiplicity not only as a question of different observations yet also as a question of multiple experiences. Hereby, each experience unfolds with its own ‘durée’ whilst also unfolding through a multiplicity of interplays between vertical and horizontal ‘durée’ (as each experience necessarily entails other experiences from the past and the future, all intersecting with the continuous flow of ‘durée’). Thus, a multiplicity of different ‘durées’ is created, all contributing to the overarching flow of time. Considering temporal multiplicity therefore is not only a question of diverging temporalities between organizations (Reinecke & Ansari, 2015) or actors (Kremser & Blagoev, 2021) but rather also entails a consideration of different temporalities within one process.

For process organization studies this opens up several new research questions. Whilst so far, many studies have focused on multiplicity in form of competing temporal structures (Blagoev & Schreyögg, 2019; Kremser & Blagoev, 2021; Reinecke & Ansari, 2015; Turner & Rindova, 2018), the immanent temporal multiplicity that stems from organizational becoming has not received much attention yet. For example, in their paper on process multiplicity, Pentland et al. (2020) use the case of a visit to a medical clinic to outline their understanding of multiplicity (as a duality of one actual and many possible paths). The authors hereby focus on the multiple sequences of actions that form this path, thus highlighting how organizational phenomena (might) evolve through time. If we, however, follow this line of thought, yet focus on how temporality is experienced within this process, we might not ask which steps the actors might take next to follow this path but rather how the single experiences within this becoming shape its overarching flow and how these experiences contribute to a temporal multiplicity. So, whilst the patient might be experiencing anxiety while waiting for the doctor to arrive, this anxiety will later be transformed to boredom when they have to wait for the results to come back. This shift changes the focus from purely observing the overarching process (i.e., the vertical ‘durée’) towards integrating its momentary intensities into this overarching flow (i.e., the horizontal ‘durée’). Instead of describing the path of visiting a clinic, it now switches the perspective on explaining the particular intensity of experience, moment, or action. This particular intensity of the momentary experience unfolds with a unique temporal depth that yet evolve and change through the different steps of this clinic visit. Temporal intensity thus allows us to explain how organizational phenomena not only change through time yet also how these momentary experiences change the possible paths of its becoming. When we explain the patient’s experience of anxiety as an integral part of this organizational process, we might also be able to shed further light on the question how, and particularly why, it then results in

boredom. Focusing on the shifting intensities of this organizational becoming hereby provides a novel perspective on the underlying temporalities of organizational change.

Also, simultaneously to this boredom, the patient might experience stress as they are talking to their worrying partner that is in need of being calmed down. Thus, although this example might be quite simple, it illustrates the temporal multiplicity that unfolds and evolves through the becoming of this clinic visit. As it unfolds in continuous becoming of horizontal 'durée', its single experiences contribute to a multiplicity of vertical 'durées', thereby creating a temporal multiplicity within the experience of time. Each of these multiple 'durées' unfolds with its own intensity which becomes particularly relevant in relation to the other intensities. So, while sitting and waiting in one situation might be quite relaxing (e.g., imagine sitting on a mountain, waiting for your climbing partner to arrive), in other situations it might result in stress and anxiety (e.g., visiting a clinic). Although from the perspective of horizontal 'durée' these moments appear quite similar (i.e., in both situations someone is sitting and waiting), highlighting their particular intensities, and thus their vertical 'durée', allows to elucidate their momentary characteristics, and thus their differences. The experienced relaxation on top of a mountain hereby might unfold in a rather low momentary intensity that stands in particular contrast to the eventually highly intensive ascent. In contrast, the anxiety of waiting for results in a clinic might be characterized by a high momentary intensity that contrast with the low intensity of the experienced boredom while waiting for the doctor to attend you. Thus, each of these experiences unfolds with a unique intensity, and hence a particular temporal depth, that yet only becomes obvious in relation to the varying intensities of other moments. Only by integrating the qualitative multiplicity of different experiences that unfold in the indivisible flow of 'durée', these differing intensities become salient. Integrating the qualitative and heterogeneous multiplicity of 'durée' in process organization studies thus leads to further research questions: How do actors create and enact temporal multiplicity in organizational becoming? How do diverging temporalities intersect and interact with each other? How does temporal multiplicity evolve and change through organizing?

Conclusion

Despite its crucial role in enhancing our understanding of processuality, process organization studies still lack a nuanced and differentiated understanding of time. As delineated through the presented points of critique and their corresponding explanations, it is evident that this perspective would benefit from further theoretical development. In order to contribute to the ongoing discussions, this paper challenges prevailing notions of time within process

organization studies and introduces Bergson's concept of 'durée' to develop a more refined understanding of temporality. It contributes to ongoing discussions by developing the ideas of vertical and horizontal ‘durée’; notions that help to grasp the interplay of moments and flow in organizational becoming. Whilst horizontal ‘durée’ hereby elucidates on the momentary observation of continuity, vertical ‘durée’ explains the continuous experience of moments through its particular intensities. By focusing on the interplay of both, different implications for the understanding of time in process organization studies are developed. This paper contributes to the current discussions by introducing experienced temporality as a way to grasp how emotions and thoughts evolve from organizing. Also, it elucidates on temporal multiplicity as an immanent characteristic of organizational becoming.

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Article II

The Time Is Right When You Make It Right: Coordinating Routine Clusters in Sustained Crises

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Abstract

Drawing on the routine dynamics literature, this article examines how organizations coordinate multiple routines to achieve robust collective action in sustained crises. We conducted an observational study of the Ebola emergency response operation of the Uganda Red Cross Society, which lasted for almost two years. Our findings show that in sustained crises, there is a need for both enacting clusters of interrelated routines to achieve robust operations and the ability to accommodate unexpected events in coordinating these routine clusters. This is achieved by enduring temporal conflicts and by purposefully manipulating past and future. Our study contributes to research on (1) coordinating multiple routines by arguing how the ability to endure temporal conflicts enables organizations to simultaneously process the non-simultaneous to increase the temporal complexity of routine clusters and to (2) studies of coordination by outlining how time itself becomes a means of coordination with actors being able to reflect on and purposefully intervene in the situated enactment of past, present and future.

Keywords coordinating, sustained crises, routine cluster, interface, temporality

Introduction

With over 2,200 deaths and 22 months until the epidemic was officially declared over, the 10th Ebola outbreak in the Democratic Republic of Congo (DRC) was the second deadliest Ebola epidemic in world's history (World Health Organization, 2020a). Very early on, Uganda declared the outbreak in neighboring DRC as a serious public health emergency, and strict measures to prevent the spread of Ebola into Uganda were implemented. One of the main actors was the Uganda Red Cross Society (URCS), the leading crisis response organization in the country. However, since URCS typically responds after (not during) short-term crises like floods, accidents, or landslides where the operations last only for a very limited time, the Ebola outbreak posed a significant coordination challenge for URCS and its partner organizations. It required coordinating a set of routines in a robust, reliable way over extended periods of time while simultaneously responding to urgent events that challenged the continuity of the operation. Particularly, securing funding and reliably screening all people for symptoms of Ebola who were crossing the border between DRC and Uganda for extended periods of time posed a major challenge for URCS. URCS showed a remarkable degree of effectiveness: Although the border between Uganda and DRC remained open and was highly frequented, the spread of Ebola into Uganda was prevented over this two-year period, and the epidemic could be contained successfully.

This type of sustained, long-lasting crisis presents organizations with very distinct coordination challenges: acting reliably over extended periods of time under conditions of an emergency requires actors to take a long-term perspective (Bansal, Reinecke, Suddaby, & Langley, 2022; Kim, Bansal, & Haugh, 2019) while constantly being prepared to respond to acute developments that threaten the continuity of the operation. Hence, coordinating collective action requires upholding robust operations for extended periods of time under conditions of an emergency (Weick & Sutcliffe, 2007).

Research on coordinating in crises has already pointed to the importance of enacting routines to ensure reliable, robust operations in disrupted environments (Bechky & Okhuysen, 2011; Feldman, Worline, Baker, & Lowerson Bredow, 2022; Geiger & Danner-Schröder, 2021; Weick & Sutcliffe, 2007). Enacting routines is seen as crucial in such situations since it enables routine participants to keep operations on track despite disruptions and to remain focused in adverse environments (Geiger & Danner-Schröder, 2021). Prior studies, for example, have explored how routines allow for standardized responses in adverse environments and how routine participants quickly reorganize routine performances to respond to novel, unexpected

developments (Bechky & Okhuysen, 2011; Danner-Schröder & Geiger, 2016). These studies provide important insights into how single routines are enacted in crisis situations. More recent studies have shifted the focus from the performance of a single routine in situations of crisis towards more complex emergencies that require the coordination of multiple routines (Geiger & Danner-Schröder, 2021; Geiger, Danner-Schröder, & Kremser, 2021). Such coordination of multiple routines requires enacting the right routine at the right time, as well as terminating the performance of a routine in case of an unexpected event and instantaneously switching to the performance of another routine (Geiger et al., 2021).

While all these studies shed important light on the question of how routines are performed and coordinated in crises and emergencies, they all focus on short-term emergencies where multiple routines are coordinated ad-hoc (Baker, Feldman, & Lowerson, 2013; Danner-Schröder & Geiger, 2016). However, the ability to withstand adversity over *extended periods of time* requires robust operations that cannot exclusively rely on ad-hoc coordination, as research on so-called high-reliability organizations has already pointed out (Weick & Sutcliffe, 2007; Weick & Roberts, 1993). Operating under conditions of adversity for extended periods of time requires the ability to carry out robust actions while simultaneously being able to respond to unexpected, novel events that threaten the continuity of the operation (Patriotta & Gruber, 2015). Seen this way, long-term, sustained crises require stable, reliable operations that can be performed for extended periods of time (Darkow, 2019). Research on the coordination of multiple routines has already argued that robust, reliable operations require a tighter coupling of interdependent routines compared to ad-hoc coordination (Rosa, Kremser, & Bulgacov, 2021). This raises the question of how multiple routines are coordinated in response to a long-lasting, sustained crisis where ad-hoc coordination reaches its limits. In adopting a routine dynamics lens, our study hence asks how multiple routines are coordinated in response to sustained crises that extend over prolonged periods of time to achieve robust collective action.

We address this question by studying the Ebola emergency response operation of URCS, which was ongoing for almost two years. Our findings suggest that, first, enacting a so-called cluster of interdependent, complementary routines that are connected via interfaces is essential to ensure robust operations over extended periods of time. Second, we show that the continuity of the operation is achieved by the ability of routine participants to endure conflicting temporal orientations through temporarily de-coupling once tightly coupled routines. This de-coupling is possible since routine participants purposefully manipulate past and/or future in an effort to coordinate interdependent routines. These insights contribute to our understanding of how collective action in sustained crises that require efficient and robust outcomes is balanced with

the need for flexibility. We thereby extend research on the coordination of multiple routines in sustained crises by pointing to the ability of *enduring temporal conflicts* that allows routine participants to simultaneously process the non-simultaneous to achieve collective action and increase the temporal complexity of routine clusters. Furthermore, we contribute to coordination literature by introducing the notion of *temporal manipulation,* which allows us to conceptualize coordination not as something that refers to the alignment of time or the enactment of temporal structures but instead renders the manipulation of time itself as a means of coordination.

The remainder of the paper is structured as follows: In the next section, we discuss the coordination of multiple routines in (sustained) crises. We then introduce our case study, the data collection, and the data analysis approach before we report our main findings. In the discussion, we elaborate on the role of time in coordinating multiple routines and how routine participants endure temporal conflicts to address coordination problems. Moreover, we argue how manipulating time is a distinct way of addressing coordination problems between routines. We conclude with a brief summary and reflections on the limitations of our study.

Coordinating Multiple Routines in Crises and Emergencies

Organizational routines are central tenets for organizing, and a multitude of routines are performed in organizations (Feldman & Pentland, 2003). It is, hence, well-established that coordinating collective action requires enacting multiple routines by diverse actors (Geiger et al., 2021; Kremser & Blagoev, 2021; Turner & Rindova, 2018). Building on routine dynamics research that defines routines as "repetitive, recognizable patterns of interdependent actions, carried out by multiple actors" (Feldman & Pentland, 2003, p. 95), studies have explored how routines are performed in responding to crises and disruptions. They are recognized to play a key role in responding to unexpected events (Geiger & Danner-Schröder, 2021) as routine participants either standardize or flexibilize their performances to cope with uncertainty (Danner-Schröder & Geiger, 2016; Danner-Schröder, 2020; Okhuysen & Bechky, 2009; Rerup, 2009). For example, in studying an emergency response operation in the aftermath of earthquakes, Danner-Schröder and Geiger (2016) show how actors keep the performances of routines standardized to avoid variations in situations of high uncertainty, whereas the performances are flexibilized in the actual response efforts to deal with a variety of different, unanticipated situations. In a similar vein, research on routine dynamics has opened up novel ways to better understand how actors improvise routine performances in the aftermath of an acute crisis and how these new patterns become stabilized, contributing to a new normal,

following the acute crisis (Baker et al., 2013). Moreover, routine dynamics studies enable us to grasp better how mindful and mindless processes are enacted in response to acute, sudden disasters (Levinthal & Rerup, 2006).

While all these studies predominantly focus on the performance of a single routine, more recent studies indicate that coordinating collective action in response to crises and emergencies requires the enactment of multiple, interdependent routines (Hoekzema, 2020; Kremser & Schreyögg, 2016; Rosa et al., 2021; Spee, Jarzabkowski, & Smets, 2016). First studies have shown that especially more complex emergencies require enacting an entire set of routines (Danner-Schröder, 2020; Geiger et al., 2021). This raises the question of how multiple routines are coordinated in response to emergencies. By studying firefighting operations, Geiger et al. (2021), for example, show that firefighters coordinate multiple, interrelated routines ad-hoc through the enactment of temporal boundaries. Enacting temporal boundaries allowed firefighters to terminate the performance of one routine just in time to ad-hoc start the performance of another, interrelated routine in response to an unexpected, urgent event. This enactment of temporal boundaries enables firefighters to ad-hoc coordinate multiple, interrelated routines in short-term emergencies (Geiger et al., 2021, p. 248).

All these studies have in common that they point to the ad-hoc coordination of interdependent routines in response to acute emergencies and crises with a relatively short duration and confined temporal horizons (Bechky & Okhuysen, 2011; Faraj & Xiao, 2006). For example, a firefighting operation typically lasts between five minutes and 24 hours and is demarcated by a clear and distinct beginning and ending (Geiger et al., 2021). Without a doubt, these studies provide us with important insights into how coordinating unfolds in situations of acute emergencies and how the ad-hoc coordination of multiple, interdependent routines allows to respond to unexpected events. However, these insights are of limited value when it comes to understanding how actors coordinate multiple routines in response to sustained, creeping, and enduring crises (Boin, Ekengren, & Rhinard, 2020), as these require more stable operations that can be sustained for extended periods of time (Darkow, 2019).

However, research on the coordination of multiple routines shows that reliable, stable operations call for a different form of coordinating interdependent routines in a so-called cluster (Kremser & Schreyögg, 2016; Rosa et al., 2021). A routine cluster is defined as a set of "complementary routines, each contributing a partial result to the accomplishment of a common task" (Kremser & Schreyögg, 2016, p. 698). Specific to a cluster is that, in order to achieve reliable outcomes ("a common task"), the interdependence between routines is coordinated

through the programming or designing of interfaces (Rosa et al., 2021). These interfaces provide routine participants with a normative prescription of what can be expected of a complete routine performance (Kremser & Schreyögg, 2016, p. 716; see also: Turner & Rindova, 2018). In contrast to the ad-hoc coordination of multiple routines, where temporal boundaries are enacted to instantaneously decide which routine needs to be connected with the next one, in clusters, routines are coordinated via interfaces (Rosa et al., 2021, p. 248). To achieve this, the *timing* (what/when) of these interfaces needs to be determined to ensure smooth coordination of interdependent routines (Turner & Rindova, 2018). Through this timing of interfaces, it is ensured that the performance of one routine finishes 'just in time' for the other, complementary one to be able to start (Kremser & Schreyögg, 2016, p. 716). The timing of these interfaces, hence, plays a crucial role when it comes to the analysis of how coordination between routines is achieved (Hoekzema, 2020). As the study of garbage collection routines by Turner and Rindova (2018) as pointed out, it is crucial that the timing of the interfaces between routines needs to be aligned for successful coordination. In their case, actors of two distinct routines relied on timing-based patterning to predict the termination of a specific routine performance (at the interface) to start the following, interdependent routine (Turner & Rindova, 2018, p. 1257). In case the timing of the interfaces differed, the coordination of interrelated routines failed and led to misalignment (Turner & Rindova, 2018, p. 1273).

However, such a timing-based coordination of multiple routines that predicts the termination of a routine performance reaches its limits in crises and emergencies (Geiger et al., 2021). Particularly sustained crises have the potential to radically interrupt otherwise well-aligned temporalities (Kornberger, Leixnering, & Meyer, 2019, p. 241; Kornberger, 2022). Crises that evolve over extended time periods (e.g., the climate crisis, refugee crises, or the Covid-19 pandemic) confront actors with manifold, co-existing different and conflicting temporalities (Kunisch, Blagoev, & Bartunek, 2021; Reinecke & Ansari, 2015). First studies have shown that in dealing with such co-existing, potentially conflicting temporalities, routine participants are able to exercise temporal autonomy – the capacity to uncouple from dominating temporalities (Geiger et al., 2021, p. 253) and enact idiosyncratic temporal structures (Blagoev & Schreyögg, 2019, p. 1820). Temporal structures, as Orlikowski and Yates (2002) point out, are surfaced manifestations of temporality, including pacing, rhythm, duration, and timing, that are enacted through the patterning of routine performances (Feldman et al., 2022). In enacting these patterns, routine participants relate to "present, past, and future, including the depth of past and future horizons" (Hernes, 2022, p. 41). As 'agents of time', routine participants can be said to be oriented toward past, future, and present at any given moment, although they may be

primarily oriented toward one or another of these within any emergent situation (Emirbayer & Mische, 1998, p. 364). Seen this way, routine performances may differ with regard to how far the *temporal horizon* of routine participants reaches into past and/or future (Schultz & Hernes, 2020, p. 109). These insights suggest that in order to accomplish the successful coordination of multiple routines, routine participants orient their performances towards shared temporal orientations (Rowell, Gustafsson, & Clemente, 2016, p. 314) by reaching into past or future.

Combining these insights from prior work suggests that coordinating multiple routines in sustained crises to achieve collective action cannot rely on ad-hoc coordination but requires a more reliable, robust form of coordination. Coordinating multiple routines via interfaces in a cluster, therefore, may play an important role in accomplishing collective action in sustained crises. While a routine dynamics perspective and a particular focus on the role of interfaces, together with an understanding of the enactment of temporal orientations and the reach of temporal horizons, provide us with a fruitful theoretical toolkit to better understand how coordinating in sustained crises is accomplished, to date, there is very limited understanding of and empirical research on how such coordination in sustained crises is accomplished. With sustained crises becoming increasingly frequent (George, Howard-Grenville, Joshi, & Tihanyi, 2016), we need to better understand how multiple routines are coordinated in response to sustained crises that extend over prolonged periods of time to achieve robust collective action.

Methods

Research Setting: The Ebola Response Operation by URCS

Our interest in studying how multiple routines are coordinated in sustained crises calls for a qualitative approach of data collection and analysis (Blagoev & Costas, 2022; Miles & Huberman, 1994). Qualitative research is particularly appropriate when the research question focuses on developing theory (Locke, Golden-Biddle, & Feldman, 2008; Timmermans & Tavory, 2012). For collecting data, we take an explorative approach with a primary focus on observation, which is suitable for studies of routine dynamics (Dittrich, 2021).

As we are interested in understanding how multiple routines are coordinated in long-lasting crises, we purposefully sampled (Patton, 2015) an organization that relies heavily on routines in the execution of its tasks and which is involved in managing a long-lasting emergency. We had the opportunity to study the Ebola response operation of the Uganda Red Cross Society in Uganda and how this response organization coordinated multiple routines in its relief efforts. The operation is embedded in the broader context of the 10th Ebola epidemic in the DRC that

lasted from 1 August 2018 until 25 June 2020. As the second worst Ebola outbreak in the world's history (World Health Organization, 2020a), which was declared a 'Public Health Emergency of International Concern' (World Health Organization, 2019), this crisis presents us with a typical case (Siggelkow, 2007) of a long-lasting, sustained crisis. It unfolded over an extended period of time and presented the involved organizations with a multitude of challenges along the way.

When the DRC declared the outbreak of Ebola in North Kivu on 1 August 2018, its epicenter was located only around 100 kilometers from Uganda (funding proposal, 12.9.2018, p. 2). In order to contain the epidemic and to prevent its spread into Uganda, the Ugandan Ministry of Health initiated a wide range of activities. Checking people crossing the border at official and unofficial border crossing points for symptoms of Ebola was a key measure in which URCS played an instrumental role in its capacity as an auxiliary to the government. During the epidemic in DRC, Uganda only accounted for four cases and thus was able to successfully contain the spread of Ebola (World Health Organization, 2020b).

The long-lasting nature and the dangerousness of the disease required a high degree of vigilance to ensure the operation was reliable and robust. Already one positive Ebola case amounts to a potentially severe disaster since it could spread easily within communities. At the same time, URCS was confronted with a number of unpredicted, unexpected events that threatened the robustness of its operations and which required swift, urgent attention to avoid potentially fatal developments. Hence, the need to respond swiftly and with high levels of awareness at all times was critical.

Data Collection

To address our research question, we collected multiple sources of data. We combined data collected during observations, in-depth analysis of documents, and interviews conducted during and after our observation in the field. This resulted in a total of 672 hours of observation (two researchers were in the field at the same time), 133 pages of field notes, 58 informal interviews with people involved in the operation, and 681 pages of documentation (particularly funding documents and situation reports). In addition, we attended 23 hours of coordination and risk assessment meetings. Table 1 presents a detailed overview of all data collected.

After familiarizing ourselves with the case and the particularities of the outbreak, we conducted a field visit to observe the operations of URCS in July 2019. This field visit occurred in the aftermath of the first Ebola outbreak in Uganda, allowing us to closely follow the ongoing

operation at its peak. Consistent with studies of routine dynamics, the most important part of our data collection were the observations (Dittrich, 2021; Feldman & Orlikowski, 2011).

Observations	
Time spent in the field (2 researchers)	672 hours
Participation in meetings	7 meetings / 23 hours
Screening points observed	18 screening points
Field notes	133 pages

Interviewees		**Total: 58 interviews**
Function	*Organization*	*No. of interviews per interviewee*
Emergency Response Manager (ERM)	URCS (headquarter)	2
Deputy Emergency Response Manager (DERM)	URCS (headquarter)	3
Ebola Preparedness and Response Manager (EPRM)	URCS (headquarter)	2
Branch Manager (BM)	URCS (Kasese branch)	8
Warehouse Manager (WM)	URCS (Kasese branch)	1
URCS volunteers (V)	URCS (Kasese branch)	29 *(1 interview/volunteer)*
Program Manager (PM)	IFRC (East Africa cluster)	2
Disaster Response Manager (DRM)	IFRC / Nigerian Red Cross	1
District task force leader	District task force Kasese	2
Warehouse Manager (WM)	District task force Kasese	1
Ebola Response Manager (ERM)	WHO	1
Local Manager (LM)	UNICEF	1
Soldiers	Uganda military	1
Ebola Response Manager (ERM)	IOM	4
		Total no. of interviewees: 42

Documents	
Funding proposals	13 documents / 265 pages

Table 1. Data sources

During these three weeks, we focused on observing how routines were enacted and how they were coordinated. To do so, we decided to shadow the Branch Manager of the local URCS branch who was responsible for the operation in Kasese – the district where the first Ebola cases were detected, and that was considered to be the riskiest border area – and who closely interacted with the URCS volunteers that were engaged in the operation in Kasese. By shadowing the Branch Manager, we observed the operation at 18 screening points located

alongside the border, thereby gaining a detailed understanding of how these screening points were established, how they were supplied, and how the screening procedure took place.

As part of our observations, we conducted informal interviews (Spradley, 1979) with a large number of people involved in the operation, covering a wide range of URCS staff across different hierarchical levels (particularly with URCS volunteers who were performing most routines), as well as members of the International Federation of Red Cross and Red Crescent Societies (IFRC) who were supporting the operation. Moreover, we interviewed members from other agencies involved in the operation. These informal interviews were held throughout the day during observations whenever time permitted, for example, while driving to another location, during walks alongside the border, or as part of the observations. After returning from Kasese, we also observed members of URCS and IFRC involved in the administrative and financial parts of the Ebola operation in the headquarters of URCS in Kampala for four days, providing us with detailed insights into the operation's backbone. In addition, as typical for observational studies (Spradley, 1979), we had dozens of informal conversations each day that also found their way into our field notes.

Data Analysis

To answer our research question, we relied on an abductive approach in analyzing our data since we combined our theory-informed focus on routines, coordination, and timing of interfaces with a more open approach to reveal what routine participants actually did to coordinate multiple routines (Locke et al., 2008; Sætre & Van de Ven, 2021; Timmermans & Tavory, 2012). Hence, our data analysis unfolded in three steps. Consistent with studies of routine dynamics, our unit of observation was the actions taken by actors, whereas the unit of analysis was the patterns of actions (routines) that emerged from these actions (Dittrich, 2021).

In the first step, we aimed to identify the central routines that were enacted as part of the operation. We quickly noticed that some actors had shifting roles, thus being involved in more than one routine (Kremser & Blagoev, 2021). Therefore, we could not rely on the observation of actors but instead had to code for single action steps (Pentland, Haerem, & Hillison, 2010) that we either observed in the field or reconstructed from the interviews. Following Kremser et al. (2019), an action step was coded to belong to the same routine if one action built the immediate, situation-specific context for the next. Conversely, two actions were considered part of different routines if the successful accomplishment of one action did not rely on situation-specific information about the other. This coding procedure resulted in the identification of four

routines that were enacted by URCS members in the response operation: (1) funding, (2) setting up screening points, (3) screening, and (4) supplying.

Second, given our interest in the coordination of multiple routines, we analyzed the interrelations of these four routines. It quickly turned out that the four identified routines were highly interdependent, and their coordination relied on specific interfaces. Going back to the literature on routine clusters helped us sharpen our analytical focus on the interfaces between those routines since they are key to understanding how coordination unfolded (Rosa et al., 2021). Informed by literature on routine clusters, it is important to note that these interfaces do not exist outside of routines but instead are part of the performance of a focal routine, which triggers the performance of the complementary interrelated routine. As Kremser, Pentland, and Brunswicker (2019, p. 82) have put it: "interdependence within and between routines 'happen[s] on the level of action steps'". More specifically, we analyzed which action step of one routine built the interface to the related, complementary action of the interrelated routine. This allowed us to identify which action step in which routine marked the interface to another related routine, i.e., which action step needed to be concluded so that another, related routine performance could be accomplished. We could thus identify five interfaces between the four routines, which we labeled as I_1, I_2, I_3, I_4, I_5 (see Figure 1). Moreover, we depicted which action steps were enacted as part of these interfaces (interface action step; see codes in Table A in the appendix). To do so, we were keen on identifying which interface action step built the boundary to the related interface action step of the other routine. Therefore, each interface consists of two interface action steps: one in each of the related routines. To account for these two interface action steps that made up the interface, we extended our numerical code: For interface I_1, for example, the corresponding interface action steps would be $I_{1.1}$ (calculate budget for response plan of action/number of necessary screening points) and $I_{1.2}$ (recruiting volunteers to staff screening points) respectively. $I_{1.1}$ builds the interface action step of the funding routine with the setting up screening points routine, while $I_{1.2}$ marks the interface action step of the setting up screening points routine with the funding routine. Identifying these interface action steps was crucial for the subsequent step of our analysis.

Third, since we were interested in how multiple routines were coordinated in sustained crises, we used the critical incident technique (see: Bott & Tourish, 2016; Kremser & Schreyögg, 2016 for a similar approach) to identify critical situations that challenged the robustness of the identified routine cluster. After having identified a number of incidents, we then decided to focus our subsequent analysis on the ones our interviewees perceived as most severe and problematic. We were interested in understanding how these events affected the

coordination at the interfaces between those four routines. Informed by our theoretical toolkit on an agentic view of time and the importance of a shared temporal orientation as developed above, we aimed to analyze how routine participants were addressing the temporal horizons of interfaces by reaching into past and/or future. With temporal horizon, we refer to how deep routine participants, in performing an interface action step, reach into the past and/or future (Schultz & Hernes, 2020). Our analysis revealed that conflicts in the temporal orientation of related interface action steps turned out to be a coordination problem that needed to be addressed. Based on our critical incident technique, we started by identifying events that triggered coordination problems (trigger). We then aimed to uncover how these translated into a coordination problem for routine participants (coordination challenge). Next, we were interested in how these coordination problems were addressed by routine participants at the interfaces (coordinating action) by reaching into the past and/or future. Similar observations with regard to these categories in our data were grouped into each of the identified categories (trigger; coordination challenge; coordination action). Subsequently, each specific category was then summarized into one unifying theme (Miles & Huberman, 1994). Table 2 (see Appendix) provides an overview of our data structure that we also use to structure our findings section. Table A in the online appendix provides a detailed overview of the identified routines with the respective action steps, the interfaces, interface action steps and the temporal horizon of the interface action steps.

Insert Table 2 about here

Findings

The findings section is structured in two parts: First, we show that in order to achieve robust and reliable operations over extended periods of time, URCS enacted a cluster of complementary routines that were connected via interfaces. Second, we uncover how this cluster of routines was flexibilized to respond to unexpected events that threatened the continuity of the operation.

Enacting a Routine Cluster

In response to the Ebola outbreak in neighboring DRC, it was the primary concern of URCS to prevent the spread of Ebola into Uganda. To achieve this, it was decided that all people crossing the border from DRC to Uganda get screened for Ebola symptoms, and in case

symptoms are detected, they get referred to an Ebola treatment unit for further testing and isolation.

Need for robust action over extended time periods:

The Ebola response operation was considered very distinct from the normal work of URCS and presented the organization with novel coordination challenges. The responsible Emergency Response Manager (ERM) explained: "This operation is really new for us…. Normally, in emergency responses, we deal with floods or landslides. Once a flood has happened, we make an assessment and request for funding via a DREF from IFRC. But this is always short-term, and we just try to support as good as possible. Ebola is a whole lot different: we knew from the beginning that this can last for quite some time…and we cannot make any mistakes here. You know, if just one positive case passes the border, it is critical." Upholding robust operations over extended periods of time became a key concern of URCS, as the Program Managers expressed: "We need to operate reliably here since we cannot make any mistakes, the whole country depends on us. Unlike rescuing people from floods or distributing relief items after natural disasters, here we have to perform with diligence for long."

At the same time, members were aware that they did not know how the situation might develop, as the Ebola Preparedness and Response Manager (EPRM) said: "It is really unknown at this stage how it will develop in DRC and where. We start now with a couple of screening points alongside the border, but how many we actually need and how long this will be necessary is unclear."

As our data analysis reveals, this alignment to ensure robust actions over extended periods of time was achieved by enacting what we call a routine cluster (see Figure 1 for the cluster and the interfaces between routines).

Enactment of multiple routines: To ensure robust operations over extended periods of time, URCS enacted four complementary routines, which were connected through programmed interfaces (see Table A in the appendix for a detailed description of the routines).

a) The funding routine: The main task of the funding routine was to ensure that the entire operation was funded with the necessary monetary resources. Without the availability of funds, URCS could not have run the operation. As the responsible IFRC Disaster Response Manager (DRM) has explained: "URCS does not have any funds of their own to run such an operation… Ensuring funding is the first and foremost thing to do." The funding routine was first enacted

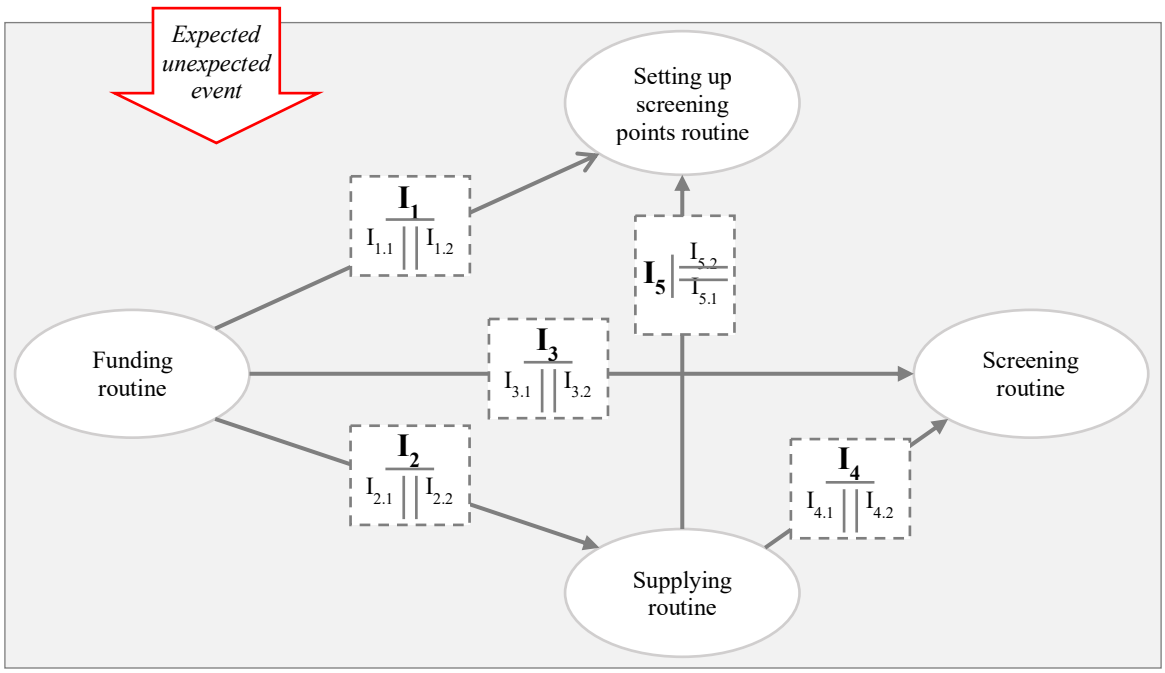

Figure 1. Routine cluster and interfaces.

on 7 August 2018 with the start of the Ebola outbreak in DRC. At the start of our engagement, the operation was funded through a so-called 'international appeal' that was launched on 17 March 2019. In order to calculate the amount of necessary funding, a rapid assessment of the situation was conducted, and based on this information, the URCS Disaster Response Manager (DRM), together with the Program Manager (PM) of IFRC, developed different scenarios of what could happen (i.e., how many people might potentially be affected by the outbreak) and what resources would be needed (i.e., supplies, number of required volunteers and number of screening points). After deciding on the most likely scenario, they calculated the necessary budget for the next six months, which is the standard funding period for an international appeal. Once the funding had been approved by IFRC, the funds were transferred into the URCS account, and the operation could unfold for a duration of six months.

b) Setting up screening points routine: The task of the setting up screening points routine was to establish sufficient screening points alongside the border between Uganda and DRC. This required information about the location of formal and particularly informal border crossing points. As the Deputy Emergency Response Manager (DERM) explained: "Before we can start screening, we first need to identify where to set up screening points. Since this is a very porous border with many informal crossings, we need to make sure to cover those as well and set up our screening tents there." Once the locations of screening points were identified, the necessary infrastructure for the screening had to be set up. At each screening point, URCS volunteers set up a tent, a station where people could disinfect their hands with chlorine water, and a

thermometer to measure the body temperature of people. Once screening points were fully set up, the actual screening could be performed.

c) The screening routine: The task of the screening routine was to ensure that every person crossing the border from DRC to Uganda got screened for Ebola symptoms. The screening routine started with URCS volunteers ensuring that every person who wished to cross the border first disinfected their hands, and then their body temperature was taken with a thermometer. A volunteer, taking the body temperature, told us: "It is very important that we screen everyone who passes, even if it is hectic like on market days with so many people crossing. But this needs to be done diligently." People were only allowed to proceed if their body temperature was below 38° C. Otherwise, volunteers would isolate the person and call for an ambulance to transfer the suspect to an Ebola treatment unit for further testing.

d) The supplying routine: The main task of the supplying routine was to ensure a timely provision of supplies to screening points (existing and newly established ones). To do so, the Branch Manager (BM) regularly purchased necessary supplies like face masks, chlorine for disinfection, thermometers, and batteries from local vendors and stocked them at the branch warehouse. She frequently contacted the volunteers at the screening points, asking for missing supplies, eventually stocking up with what was needed. Every day, when she was anyway visiting screening points by car, she took supplies with her, handing them over to the volunteers. As she explained: "Supplying the screening points is one of my main and critical tasks. As you have seen, the screening points are far away from each other, and it takes very long to get there, so I have to ensure that I bring the necessary supplies each time I come. Without them, they [the volunteers] cannot continue screening."

Definition and enactment of interfaces between routines: A tight coordination of these four routines was seen as critical to ensuring robust, well-aligned operation, as the Emergency Response Manager (ERM) explained: "In this operation, all the tasks needed to be very well aligned. If we do not operate like clockwork, there will be loopholes and gaps which are potentially devasting. We must ensure that everything is there and ready in time and that sufficient volunteers are available to screen at all times." Likewise, the Ebola Preparedness Manager (EPM) pointed out: "Setting up this operation is different from our normal emergencies like floods or landslides. There, you apply for short-term funding and just start doing things more ad-hoc. Here, we know that this operation can last for years, so we needed to establish an operation that runs like a well-oiled machine." This long-lasting nature of the emergency required a stable set-up which required a tight connection of the enacted routines,

as a volunteer who was responsible for preparing chlorine water at the screening points expressed: “You know, here all is tightly connected, we depend on the others so much and for such a long time. Without a timely supply, we would have to stop, which is not possible because we cannot close the border point”.

As your data analysis shows, this tight interconnecting of the four routines was achieved via interfaces (see Figure 1 for an overview of the cluster and Table A in the appendix for details). Since ensuring the necessary funding for the operation was critical, the funding routine shared a tightly programmed interface with the setting up screening points routine (I_1), the supplying routine (I_2), and the screening routine (I_3). The interface action steps that were part of the funding routine were the calculation of the necessary budget for setting up screening points ($I_{1.1}$), for providing sufficient cash to purchase supplies ($I_{2.1}$), and for paying the volunteers who perform the screening ($I_{3.1}$).

The setting up screening points routine depended on the interface with the funding routine in order to recruit the necessary volunteers [recruiting volunteers to staff SP] ($I_{1.2}$); the supplying routine depended on the funding routine since the Branch Manager required sufficient cash for buying supplies [buying lacking supplies at local warehouse] ($I_{2.2}$); and the screening routine was interrelated with the funding routine since all volunteers who were performing screening needed to be paid [bi-weekly payment of volunteers] ($I_{3.2}$). As the IFRC Disaster Response Manager (DRM) said: “Without cash in our accounts, we cannot pay volunteers, buy supplies or set up any screening points”.

Likewise, the supplying and screening routines shared a tightly coupled interface (I_4): Offloading the necessary equipment at the screening point built the interface, which enabled the volunteers to continue screening [offloading supplies at SP] ($I_{4.1}$). Usually, volunteers performing the screening routine called the Branch Manager in case of lacking or nearly depleted supplies, which built the interface to the supplying routine [calling BM in case of lacking supplies] ($I_{4.2}$). Moreover, the supplying and the setting up screening points routines were coupled with a tightly programmed interface (I_5): Storing necessary equipment like tents, chlorine, and thermometers in the warehouse was a precondition for being able to set up screening points [preparing material at warehouse] ($I_{5.1}$). Whereas only if sufficient equipment was available in the warehouse, could it be loaded in the car and transported to the screening point, which was to be set up [loading equipment in car] ($I_{5.2}$). This tight programming of routine interfaces was seen as necessary to ensure an efficient operation that could last for extended periods of time.

However, as our analysis of the critical incidents revealed, this well-oiled cluster of routines was repeatedly challenged by expected unexpected events, which, due to the urgency of these events, required immediate action. Our analysis of these critical events revealed two distinct ways how the cluster of routines was coordinated in case unexpected, urgent events threatened its well-aligned operation. Given our interest in the dynamics of the cluster, we studied what happened at the interfaces between routines in response to these critical events.

Temporarily De- and Re-coupling by Re-enacting the Past to Respond to Urgencies

Expected unexpected event: The first Ebola cases: On 11 June 2019, URCS volunteers who were performing the screening routine at Mpondwe screening point detected three people showing Ebola symptoms. After isolating them, they were transferred to the closest Ebola treatment unit in Bwera/Uganda and tested for the virus. One day later, the cases were confirmed positive and hence marked the first three Ebola cases in Uganda. This was seen as a major concern, calling for immediate, urgent response efforts. In an emergency meeting with all involved partners on 12 June, the leading district task force called upon URCS to scale up the operation immediately and establish new screening points at the border to prevent people from entering the country without getting screened. As the district task force leader said during that meeting: “It is vital that we continue screening at the border with high diligence; no one shall slip through. URCS is mandated to scale up the operation and intensify the screening.”

Coordination challenge: Conflicting temporal orientations at the interface (I_1): The need to immediately intensify the border screening activities created a severe coordination problem at the interface between the funding and the setting up screening points routines (I_1). When the three cases occurred in Uganda, the situation on the ground became very urgent, as the URCS Branch Manager recalled: “After the positive cases, everyone was in crisis mode, and the public was very concerned.”

This led to a conflict between the temporal orientation of the interface action steps of the funding ($I_{1.1}$) and the setting up screening points routine ($I_{1.2}$): While the temporal horizon of routine participants at the interface action step of the funding routine ($I_{1.1}$) was reaching six months into the future and was supposed to reach into the future for another two months at the time of the event (because the operation was already running for four months), the temporal horizon of routine participants at the interface action step that was part of the setting up screening points routine was oriented towards the immediate present and called for immediate recruitment of new volunteers ($I_{1.2}$). Hence, the temporal orientations conflicted: immediate upscaling ($I_{1.2}$) versus a calculated budget for six months (here: another two months) ($I_{1.1}$).

Coordinating action: De-coupling: URCS operations management was quite aware of the conflicting temporal orientations of these two interface action steps, as the responsible URCS Ebola Preparedness and Response Manager (EPRM) explained: "We know that we currently lack the financial resources for those additional screening points. But there is no alternative; we cannot wait until August to set up new screening points and then apply for additional funds." Or, as the Branch Manager said: "We quickly responded to the call from the district task force and set up these new screening points". A volunteer operating at one of the new screening points said: "It was such an urgent instant. There was no possibility of waiting; we had to act now". As a result, the Branch Manager simply decided to set up new screening points and thus disregarded the interface with the funding routine. She said: "You know, I actually do not really look into the funding documents. Usually, Kampala [URCS headquarters] tells me if we lack resources." The IFRC Program Manager confirmed: "…you know, operation and financial system – they do not move in parallel". As a result of this decision, the tight coupling between the two routines became de-coupled, and new screening points were established, irrespective of the lack of funds.

Coordinating action: Re-coupling by working backwards: This de-coupling between the funding and the setting up screening points routines eventually became addressed at a later stage, namely in August 2019, once the six-month funding period was coming to an end. Upon assessing the number of screening points and the number of volunteers engaged in screening, the de-coupling between the funding and the setting up screening points routines became apparent: "It became clear that in total we had 418 instead of 184 volunteers engaged in screening.", the URCS Emergency Response Manager explained. To address this gap, the IFRC and URCS managers referred to the interface action step of the funding routine ($I_{1.1}$), as they explained: "You work backwards and say, okay, now we are talking about actual Ebola cases in Uganda, which was the worst-case scenario back then." By engaging in what they called 'working backwards', they referred to the worst-case scenario initially developed as part of the funding routine in March 2019 but was not considered back then. As the Deputy Emergency Response Manager said during the write-up: "We now go back to the original document and take the previously rejected scenario and refer to it for the new proposal. This way, we justify the new resources by working backwards." This working backwards in writing up was reflected in the funding document: The new proposal stated that "418 volunteers *have been* conducting screening" (emphasis added). By working backwards, routine participants extended the temporal horizon of the interface action step into the past [calculate budget for response plan of action] ($I_{1.1}$): It now was now not only oriented towards the future (the next six months) but

also towards the past (the last two months) by stating that 418 volunteers *have been* conducting screening. By extending the temporal horizon of the interface action step of the funding routine towards the past, routine participants were able to re-couple the two routines in the present, thereby rectifying the de-coupling that took place in the past. Being able to re-couple in the present allowed the routine participants to respond to the urgent event flexibly. Routine participants were able to de-couple the tightly programmed interface since they knew that they were able to re-couple them at a later time and change the past in the future by working backwards. Or, as the IFRC Program Manager put it: "Well, you know, we are aware that we need flexibility, and it somehow has to work out in the end." In this case, flexibilizing the routine cluster was achieved by adjusting the temporal horizon of the interface action step to reach into past and future.

Temporarily De- and Re-coupling by Pre-empting the Future

Expected unexpected event: On 17 July 2019, the district task force discovered that another Ebola suspect had entered Uganda – this time through an unofficial path, which explained why the person was not detected during the screening. The person was identified as a fishmonger who spent the day at the market in Mpondwe and later returned to DRC, where she then was diagnosed positive. As she was in close contact with many people at the market, there was a high risk that she had infected others. As a result, the district task force was on high alert and called for an immediate coordination meeting to discuss the matter: "It looks like we still do not sufficiently manage to close this porous border in the district. Cases continue to increase in the DRC; we have to be on high alert and very aware of the risk we expose our communities to", the leader of the district task force stressed during a district task force meeting. "I ask that UCRS closes these gaps we still have?".

Coordination challenge: Conflicting temporal orientations at the interfaces (I_1; I_2; I_3): The need to immediately close the informal border crossing points created a severe coordination problem at the interface between the funding, the setting up screening points, the screening and the supplying routines. Closing the porous border meant that URCS had to set up and operate a large number of additional screening points, which required the immediate recruitment of additional volunteers ($I_{1.2}$). It further entailed that additional supplies were immediately needed to set up and equip the new screening points. Since these additional supplies were unavailable in the warehouse, the URCS Branch Manager had to buy them at local shops ($I_{2.2}$). Moreover, to perform the screening at the new screening points, the Branch Manager had to recruit 18 new volunteers who needed to be paid bi-weekly ($I_{3.2}$).

This immediate response, which affected the interface of the screening, the supplying, and the setting up screening points routines, conflicted with the temporal orientation of the corresponding interface action step of the funding routine ($I_{1.1}$; $I_{2.1}$; $I_{3.1}$). Even though the occurrence of another Ebola case in Uganda was somehow expected, it was not considered in the writing of the funding proposal. Instead, the calculated budget ($I_{1.1}$; $I_{2.1}$; $I_{3.1}$) needed to be very precise: "As you have seen, the funding proposal is very precise, asking for 418 volunteers, covering screening points until February 2020. This was needed since this is a long, ongoing situation and not an acute emergency… So, we had to be rigor here", the Deputy Emergency Response Manager explained. "We cannot accommodate these unknowns in the funding", the IFRC Disaster Response Manager stressed: "Our backdonors want precise numbers". Hence, the temporal horizon of routine participants at the interface action step reached six months into the future and precisely specified the number of volunteers for this period ($I_{1.1}$; $I_{2.1}$; $I_{3.1}$). This conflicted with the temporal orientation of the interface action step of the setting up routine: here, routine participants had a temporal horizon that reached into the immediate present since this called for the immediate recruitment of new volunteers ($I_{1.2}$). Likewise, the temporal horizon of routine participants at the interface action step of the supplying routine reached into the immediate present and required to buy new supplies instantaneously ($I_{2.2}$). Similarly, the temporal horizon of routine participants at the interface action step of the screening routine reached into the immediate present and required immediate payment of the newly recruited volunteers who were screening ($I_{3.2}$).

Coordinating action: De-coupling: Despite the conflicting temporal orientations at the interfaces between the routines, the Branch Manager did not waste any time after the district task force meeting and went to the warehouse to see what supplies were available. It quickly became clear that new tents and screening equipment needed to be bought: "As you see, our warehouse is almost empty. We have to get at least four more tents, and we also lack thermometers, face masks, chlorine, so basically everything. We now need to go and buy it.". By setting up and supplying new screening points, the Branch Manager directly followed the lead of the district task force and did not consider that there was no funding secured for scaling up the number of screening points. As she said: "You know, it is like the situation in June. I am not consulting with Kampala for funds; we just have to do this; it is our mandate. The district task force is in the lead here." As a result, the tight coupling between the four routines became de-coupled: new screening points were set up, additional volunteers were recruited, and new supplies were bought without any changes at the interface of the funding routine.

Coordinating action: Re-coupling by temporal buffering: When the IFRC Program Manager learned about the newly established screening points and the upscaling of the operation, she knew that there was nothing she could do at the moment: "We just rewrote the funding." Hence, the temporal orientation of the interface action steps of the funding routine ($I_{1.1}$; $I_{2.1}$; $I_{3.1}$) remained unchanged. Interestingly, though, as the volunteer responsible for overseeing the attendance sheets of the volunteers told us: "You know, right now, we have 442 volunteers that are conducting screening. But before these new screening points were set up, there were just 367." The Ebola Preparedness and Response Manager (ERM) was quite aware of these fluctuations and explained: "We did not start with all 442 volunteers in the beginning. We always knew that at some point, we might need more." As these quotes illustrate, managers were conscious that they would require flexibility to swiftly respond to new developments in the future. To account for this flexibility, the routine participants changed the temporal horizon of the interface action steps of the setting up screening points ($I_{1.2}$), the supplying ($I_{2.2}$), and the screening ($I_{3.2}$) from not only reaching into the present but also to pre-empt future developments. By setting up fewer screening points, buying fewer supplies, and employing fewer volunteers than the funding would have allowed, a *temporal buffer* for future developments was created that allowed to swiftly increase the operation in the present of the urgent event. To create such a buffer, routine participants changed the temporal horizon of the interface action step from only reaching into the present (we need now) towards also reaching into the future (pre-empting that in the future, more would eventually be required). This was possible because managers were aware that in the future, the interface with the funding routine was not the actual number of volunteers working on a specific day, but rather an average over a period of time, as the IFRC Program Manager explained: "So in theory, you write that you will cover 418 volunteers for this time, and then you budget these, right? But then, when you receive the attendance sheet, you have to pay them, and you may never have 418 volunteers in the field on a specific day. You may have like 367 or like 440-something. And when you evaluate, then you can play with the budget lines."

This temporal buffer on the interface allowed to re-couple the previously de-coupled routines in the future and thereby created flexibility to respond to urgent developments in the present. As our analysis has shown, the cluster was flexibilized with routine participants changing the temporal horizon of the interface action steps by pre-empting the future.

Figure 2 summarizes our findings and shows how a cluster of highly interrelated routines is flexibilized in response to expected, unexpected events that occur in sustained crises and demand immediate attention.

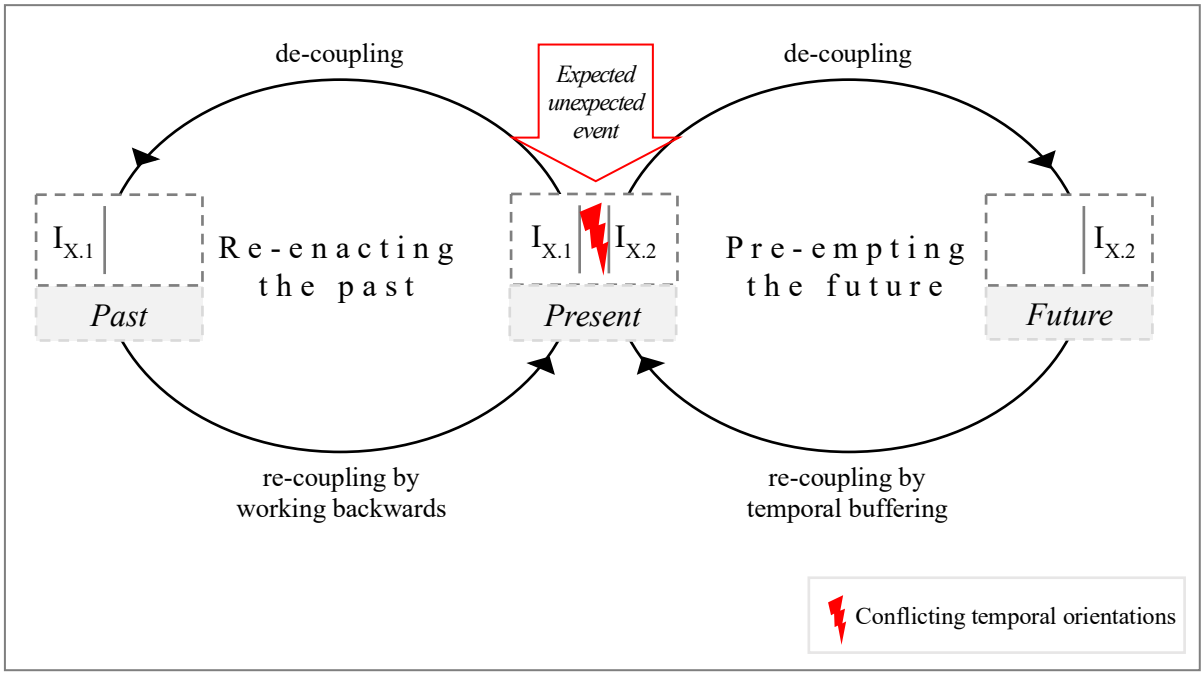

Figure 2. Flexibilizing routine clusters in response to expected unexpected events

Our study indicates that coordinating routines in sustained crises requires the coordination of a routine cluster to achieve reliable outcomes over prolonged periods of time. Expected unexpected events, however, lead to conflicting temporal orientations between routines. As we show, these conflicting temporal orientations are endured, which is possible because routine participants temporarily de-couple interrelated routines and endure the arising temporal conflict. This de-coupling is possible because routine participants are able to re-couple interrelated routines by manipulating the temporal horizon of the interface, either by working backwards or by temporal buffering. Hence, while the routines of the cluster remain tightly connected through interfaces to allow for robust coordination over prolonged periods of time, the cluster is flexibilized by temporarily de- and recoupling routines through manipulating the temporal horizon of the interfaces.

Discussion

In this paper, we seek to answer the question of how multiple routines are coordinated in response to long-term, sustained crises to achieve collective action. Our findings allow us to make two contributions that help us better understand how collective action in sustained crises is coordinated. First, we contribute to research on how coordination unfolds in sustained crises that are temporally complex. By introducing the notion of *enduring temporal conflicts,* we refer to the ability of organizations to simultaneously process non-simultaneous temporal orientations. The ability to endure temporal conflicts allows for flexible responses of routine

clusters, and it increases the cluster's temporal complexity, which is critical for dealing with sustained crises. Second, we contribute to research on coordination in crises by introducing the concept of *temporal manipulation*. Building on this ability of routine participants to purposefully manipulate past and future in the present allows us to conceptualize coordination not as something that refers to the alignment of time or the enactment of temporal structures but instead renders the manipulation of time itself as a means of coordination. Together, these insights allow us to understand how a cluster of highly interrelated routines is coordinated in sustained crises that require the enactment of stable, robust outcomes over extended periods of time while at the same time being able to respond to urgent developments.

Flexibilizing Routine Clusters by Enduring Temporal Conflicts

Prior research has shown that coordinating collective action over extended periods of time requires the coordination of a cluster of highly interrelated, complementary routines (Kremser & Schreyögg, 2016; Rosa et al., 2021). Typically, in such a cluster, the coordination of interdependencies is achieved through a tight coupling of interfaces between routines. This requires that the timing of interface action steps is well-aligned to ensure a smooth hand-over at the interface (Kremser et al., 2019). As prior studies have argued, any temporal conflict that might arise at the interfaces of routines is rejected within the cluster, implying that deviations from the existing temporal orientations will ultimately be disregarded (Kremser & Schreyögg, 2016; Turner & Rindova, 2018). As a result of this rejection of conflicting temporal orientations, a routine cluster is commonly assumed to be stable, leading to potentially path-dependent outcomes (Kremser & Schreyögg, 2016).

In contrast to this assumption, our study finds that by enduring temporal conflicts, the tight coupling of highly interrelated routine interfaces can be de-coupled. Instead of rejecting incompatible temporal orientations that threaten the timing of interfaces, conflicting temporal orientations were endured. This enduring of temporal conflicts allowed a de-coupling of highly interrelated routines, which then could be performed independently of each other, allowing them to respond flexibly to urgent developments in the coordination of the routine cluster. Table 3 summarizes the key differences between the cluster as stable and our perspective on flexibilizing clusters.

Our findings demonstrate that the coordination problem, resulting from the different, conflicting temporal orientations, was not addressed by immediately resolving the conflict through processes of negotiating (Slawinski & Bansal, 2015) or by entraining to one dominant

Dimension	**Traditional Perspective on Coordinating Routine Clusters** (e.g. Kremser & Schreyögg, 2016)	**Flexible Coordination of a Routine Cluster**
Coordination	tight coupling of routines	de- and re-coupling of routines
Timing	well-aligned interfaces	retro- and prospective timing of interfaces
Temp. orientation of interfaces	determined	modifiable
Handling of temporal conflicts	rejected	endured
Outcome of cluster	stable, path-dependent	balancing stability and flexibility

Table 3. Key differences between a traditional and a flexible coordination of a routine cluster

temporal orientation (Pérez-Nordtvedt, Payne, Short, & Kedia, 2008). Although, at least theoretically, it would have been possible to, for example, change the temporal orientation of the funding routine to a much shorter future orientation to better align it with the temporal orientation of the screening routine. This, however, would require frequent updates of the funding routine, thus affecting the entire cluster by diminishing its capability to achieve robust, reliable results over extended periods of time. Instead, the ability to endure temporal conflicts ensured the continuity of the operation.

These insights have the potential to extend our perspective on how coordination unfolds in sustained crises that are temporally complex (Bansal et al., 2022; Kunisch et al., 2021). It is important to note that the ability of enduring temporal conflicts, which implies tolerating the co-existence of conflicting temporal orientations, differs from concepts such as ambitemporality (Reinecke & Ansari, 2015) or temporal ambidexterity (Slawinski & Bansal, 2015). Ambitemporality and temporal ambidexterity refer to the ability of organizations to incorporate multiple temporalities (Reinecke & Ansari, 2015, p. 640), thereby describing how organizations engage in temporal brokerage or temporal negotiation to navigate through temporal complexity. Through temporal brokerage, conflicting parties develop a "coincident interpretation" (Reinecke & Ansari, 2015, p. 640), which suggests that temporal conflicts strive to coincide.

Our notion of enduring temporal conflicts, however, departs from this understanding and develops the idea that organizations can simultaneously process differing temporal orientations for extended periods of time without striving for any kind of harmonization or brokerage between these conflicts. Instead, enduring temporal conflicts allows to *simultaneously process the non-simultaneous* ('Gleichzeitigkeit des Ungleichzeitigen') (Baraldi, Corsi, & Esposito, 1997, p. 215). This simultaneous processing of the non-simultaneous allows for dealing with a higher degree of temporal complexity (Luhmann, 1995). As systems theory argues, the ability

to simultaneously process different temporalities increases the capability to process complexity (Blagoev & Schreyögg, 2019; Luhmann, 1995), which enables organizations to be better equipped for dealing with sustained, temporally complex crises (Kunisch et al., 2021). The ability to endure temporal conflicts allows routine clusters to continuously deal with temporally complex, sustained crises.

Temporal Manipulation as a Means of Coordination

Prior studies have commonly assumed that the successful coordination of multiple routines requires getting the timing of outcomes right (Geiger et al., 2021; Turner & Rindova, 2018). To accomplish this, routine participants either rely on clock- or event-time to ensure that a routine performance is terminated at the right time for the next one to start. More generally, in studies on coordination, it is assumed that temporalities need to be aligned for successful coordination. This is either achieved by relying on clock-time (at the same time) or by event-time (triggered by the same event) in coordinating interdepend activities (Turner & Rindova, 2021). Studies on temporal work have shown that in processes of coordination, shared temporal structures like calendars or harvesting cycles are created and re-created to support the alignment of interdependent tasks (Orlikowski & Yates, 2002). In all of these cases, potentially different temporalities are related to each other for successful coordination. Hence, coordination is believed to require relating different temporalities through engaging in temporal work.

Our study, however, adds to this perspective and makes the case that routine participants are able to *purposefully manipulate time itself to achieve coordination*. Such a perspective builds on an agentic view of time (Emirbayer & Mische, 1998, p. 970) that has consistently argued that past and future are not fixed points in time but instead are continuously created and re-created through situated present activity (Hernes & Schultz, 2020). The critical argument for our context is that past and future are, like the present, enacted and hence are created and re-created through time (Hernes, 2016; Wenzel, Krämer, Koch, & Reckwitz, 2020).

Our findings build on and extend this perspective by showing how routine participants are purposefully manipulating past and future in an effort to coordinate. By purposefully manipulating past and/or future in the present, routine participants, as ‘agents of time’, are *manipulating time itself* in order to achieve coordination. Here, coordination is not accomplished by relating between temporalities (as in clock- or event-time); instead, time itself is subject to manipulation in processes of coordination. Such a notion of purposeful manipulation of time for coordination not only builds on the general, theoretical insight that past and future are the result of a situated activity in the present (Hernes & Schultz, 2020) but

also makes the important point that actors are aware and reflective of this process and hence can manipulate it according to their own needs. Figure 2 shows how routine participants, in being reflexive about the construction of time, are able to intentionally manipulate the past by re-enacting it in the present or how they manipulate the future in the present by pre-empting future developments in the present. Quite interestingly, our study has shown that routine participants were aware that past and future are 'their own creation' and used this insight to manipulate past and/or future in the present. Seen this way, past and future are not only the result of situated activity, but actors can be reflexive about this process, manipulate it deliberately, and intentionally intervene in this process to achieve coordination.

Hence, our study not only shows that time is enacted as part of routine performances but, more importantly, that routine participants, as 'masters of time', are able to be reflexive about this process, which puts them in a position to purposefully manipulate time for coordinating. It is, however, important to note that such a purposeful manipulation of time is limited to the actual routine performances in which routine participants have a role (Kremser & Blagoev, 2021). While temporal manipulation allows routine participants to reach into past, present, and future, this manipulation is limited to actions that are part of a specific routine performance. These limits of temporal manipulation are important to consider when coordinating multiple routines. Routine participants can only manipulate the routine performance they are part of, not the performance of other, interrelated routines. This has important implications for the coordination of multiple routines: While coordination problems, as we have shown, result from different temporal orientations of interfaces, routine participants can only resolve these problems by reaching back and/or forward in time within the respective routine performance.

Conclusion

In this paper, we have explored how multiple routines are coordinated in sustained, prolonged crises. We depart from prior research by showing, on the one hand, that sustained crises require the coordination of routines through defined interfaces in a routine cluster and cannot rely on ad-hoc coordination. On the other hand, we reveal how clusters are not necessarily stable and path-dependent but instead can be flexibilized to respond to unexpected, urgent events. Embracing conflicting temporal orientations at the interfaces between routines and the ability to purposefully manipulate past and/or future are key ingredients for coordinating multiple routines in prolonged crises. Our paper thus shows how stability and flexibility are balanced in coordinating collective action in sustained crises.

However, such a study is not without limitations: First, our data set lacks a more longitudinal perspective, which would have allowed us to potentially observe further coordination challenges than the ones we identified. We tried to mitigate this shortcoming by asking our informants about what they have done in the past and how their current actions align with this. Moreover, the project is part of a longer-lasting research collaboration with URCS, which gives us deep and thorough insights into the organization for extended periods of time and allows us to put our observations into perspective. Second, we acknowledge that by focusing on one focal actor, URCS, we are only able to grasp the entire complexity of the crisis response operation involving multiple partners only partially. We would assume that by enlarging the perspective, the coordination problems observed in this study would be more severe and complex, and the ability to embrace conflicting temporal orientations and to manipulate time might have played an even more important role. Hence, it would be very interesting to explore how this plays out in the performance of multiple routines across organizations.

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Appendix: Table 2. Data Structure

Exemplary Codes	***Category*: Coordinative Work**	***Unifying Theme*: Addressing Coordination Problem**
▪ URCS is facing the challenge of responding to an unusual crisis for the organization: The Ebola response operation as a long-lasting emergency that needs to continue over extended periods of time ▪ Operation needs to be reliable since no mistakes can be made ▪ Performing with diligence for a long time is key	**Trigger:** Need for robust action over extended time periods	***Enacting routine cluster***
▪ Enacting the ‘ Funding routine’ : Securing the funding of the emergency response operation ▪ Enacting the ‘ Setting up screening points routine’ : Setting up screening points alongside the porous border ▪ Enacting the ‘ Supplying routine’ : Ensuring sufficient supplies at all screening points, avoid shortages of supplies ▪ Enacting the ‘ Screening routine’ : Checking people who cross the border for Ebola symptoms *(for detailed descriptions of routines see Appendix A, Tables A1-A4)*	**Enactment of multiple routines**	
▪ Operation should run “ like a well-oiled machine” as loopholes and gaps are potentially devastating: requires good alignment of tasks, a stable set-up and a tight connection of the enacted routines ▪ To ensure a tight connection between enacted routines and to ensure an efficient operation that could last for extended periods of time, interfaces between routines are designed ▪ To guarantee the funding of the whole operation, the funding routine shared a tightly programmed interface with the setting up screening points routine (I_1), the supplying routine (I_2) and the screening routine (I_3) ▪ Since screening was a critical task of the operation which regularly required new supplies, the supplying and the screening routines shared a tightly coupled interface (I_4) ▪ Since new screening points continued to be set up, the supplying and the setting up screening points routines were tightly coupled via a tightly programmed interface (I_5) *(for detailed descriptions of routine interfaces see Appendix A, Tables A1-A4; for display of interrelations see Figure 1)*	**Definition and enactment of interfaces between routines**	

Appendix: Table 2. Data Structure (continued)

Exemplary Codes	***Category*: Coordinative Work**	***Unifying Theme*: Addressing Coordination Problem**
▪ URCS volunteers detect three Ebola cases during a screening at Mpondwe screening point ▪ District task force asks BM to scale up the operation and establish new screening points immediately: BM experiences high urgency to act right away	**Trigger:** Expected unexpected event	Temporarily de- and re-coupling by ***re-enacting the past***
▪ $I_{1.1}$ *(funding routine)*: budget is still calculated and fixed for the next two months ▪ $I_{1.2}$ *(setting up screening points routine)*: immediate recruiting of new volunteers necessary	**Coordination challenge**: conflicting temporal orientation at interface	
▪ URCS operations management acknowledges that the funding is running behind ▪ BM continues to set up new screening points whilst disregarding the lack of funding ▪ IFRC program manager recognizes that funding and setting up screening points routines are temporarily disconnected	**Coordinating action**: decoupling	
▪ After assessing the actual number of screening points and volunteers, URCS and IFRC manager address disconnection between funding and setting up screening points routine ▪ Routine participants of funding routine rewrite the funding by ‘ working backwards’ : routine participants extend time horizon of the interface action step $I_{1.1}$ into the past ▪ By being able to extend the time horizon of interface action step into the past, routine participants are able to flexibly respond to urgent event	**Coordinating action**: recoupling by working backwards	

Appendix: Table 2. Data Structure (continued)

Exemplary Codes	*Category*: Coordinative Work	*Unifying Theme*: Addressing Coordination Problem
▪ District task force is alerted on another Ebola case that entered Uganda through an unofficial path ▪ URCS branch manager is asked to scale up the operation immediately: experiences high urgency to act right away	**Trigger:** Expected unexpected event	Temporarily de- and re-coupling by ***pre-empting the future***
▪ $I_{1.2}$ *(setting up screening points routine)*: immediate recruitment of new volunteers ▪ $I_{2.2}$ *(supplying routine)*: immediate purchase of further supplies at local shops ▪ $I_{3.2}$ *(screening routine)*: bi-weekly payment of volunteers ▪ $I_{1.1}$; $I_{2.1}$; $I_{3.1}$ (*funding routine*): precise calculation of budget until February 2020	**Coordination challenge**: conflicting temporal orientation at interface	
▪ URCS operations management acknowledges that the funding is running behind ▪ BM continues to set up new screening points, recruits new volunteers and buys new supplies whilst disregarding the lack of funding ▪ BM recognizes that the funding, supplying, setting up screening points and screening routines are temporarily disconnected	**Coordinating action**: decoupling	
▪ IFRC PM just rewrote the funding, yet already assessed a future disconnection between funding, setting up screening points, supplying and screening routines in advance by calculating with averages ▪ BM sets up less screening points, buys less supplies and employs less volunteers than budgeted, thereby creating a temporal buffer for the future, thereby extending the temporal horizon of the interface action steps ($I_{1.2}$, $I_{2.2}$, $I_{3.2}$) from only reaching into the present towards also reaching into the future ▪ Being able to extend the time horizon of interface action step into the future, routine participants are able to flexibly respond to urgent event	**Coordinating action**: recoupling by temporal buffering	

Appendix A: Descriptions of Routines

Table A1. Funding Routine

Task	**Programmed interface(s)**	**Interrelated routine**	**Interface action step**	**Temporal horizon of interface action step**	**Action steps that are part of the routine performance**	**Performing actor(s)**
Securing the funding of the emergency response operation	Precise calculation of funding for six months - Supplies - Setting up screening points - Screening				Alerting URCS ERM and IFRC PM about emergency	BM
					Requesting rapid assessment of situation, how many affected households	ERM / BM
					Receiving assessment document from BM	ERM
					Deciding to draft funding proposal	ERM / PM
					Developing of scenarios for emergency funding	ERM / PM
					Assessing the necessary measures for the most-likely scenario	ERM / PM
					Drafting the situation report and response plan of action	ERM / PM
		Setting up screening points routine	$I_{1.1}$	6 months in the future	Calculating budget for response plan of action, here number of necessary screening points	ERM / PM
		Supplying routine	$I_{2.1}$	6 months in the future	Calculating budget for response plan of action, here cash necessary for supplies	ERM / PM
		Screening routine	$I_{3.1}$	6 months in the future	Calculating the budget for response plan of action, here budget for payment of necessary volunteers	ERM / PM
					Submitting funding proposal to IFRC for approval	ERM
					Revising proposal to incorporate feedback from IFRC	ERM
					Approving funding proposal after clearance from IFRC	PM
					Advising transfer of monthly tranche to URCS accounts	PM
					Informing BM about availability of funds	ERM
					Assessing if new funding is required	PM

Table A2. Setting Up Screening Points Routine

Task	Programmed interface(s)	Interrelated routine	Interface action step	Temporal horizon of interface action step	Action steps that are part of the routine performance	Performing actor(s)
Setting up screening points alongside the porous border	Screening points are set and equipped on time On time availability of funds to set up screening points				Receiving report on loopholes in border screening	BM
					Driving to suspected area	BM / driver
					Talking to volunteer about the suspected gap	BM / V
					Going on reconnaissance mission alongside border	BM / V
					Deciding where to set up screening point	BM
					Listing of required materials and supplies	BM
					Calling warehouse manager about availability of supplies	BM
					Driving to warehouse	BM / driver
		Supplying routine	$I_{5.2}$	Immediate availability	Loading equipment in car	BM / driver / V
					Driving to screening points	BM / driver
					Carrying material to designated location of screening points	BM / V
					Erecting tent and screening booth	V
		Funding routine	$I_{1.2}$	Immediate availability	Recruiting volunteers to staff the screening points	BM
					Reporting that screening point is operational	V

Table A3. Screening Routine

Task	Programmed interface(s)	Interrelated routine	Interface action step	Temporal horizon of interface action step	Action steps that are part of the routine performance	Performing actor(s)
Ensuring that people who cross the border are checked for Ebola symptoms	On time availability of supplies On time payment of volunteers				Instructing arriving person on screening procedure	V 1
					Ensuring person washes hands	V 2
					Ensuring person disinfects feet	V 3
					Preparing chlorine water for disinfection	V 4
					Counting people who pass	V 5
					Taking body temperature with thermometer	V 6
					Instructing person to wait for the result	V 6
					Reading the result	V 6
					< 38°C: allowing person to leave screening point	V 6
					≥ 38°C: guiding person to isolation area	V 6
					Questioning person in isolation area	V 7
					After 10 minutes: measuring temperature again	V 7
					< 38°C: allowing person to leave screening point	V 7
					≥ 38°C: calling ambulance to transfer person to the Ebola treatment unit	V 7
					Making inventory of available supplies	V 4
		Supplying routine	$I_{4.2}$	Next 2-3 hours into the future	Calling BM in case of lacking supplies	V 4
		Funding routine	$I_{3.2}$	2 weeks into the future	Paying volunteers bi-weekly via mobile money	BM

Table A4. Supplying Routine

Task	Programmed interface(s)	Interrelated routine	Interface action step	Temporal horizon of interface action step	Action steps that are part of the routine performance	Performing actor(s)
Ensuring sufficient supplies at all screening points, avoid shortages of supplies	On time hand-over of supplies On time hand-over of material for screening points On time availability of cash for buying supplies				Calling volunteers at screening points, asking for lacking supplies	BM
					Drafting list of required supplies for screening points	BM
					Checking warehouse for available supplies	BM
					Calling district task force to see if they have necessary supplies	BM
		Funding routine	$I_{2.2}$	Immediate availability	Buying lacking supplies at local stores	BM
					Stocking supplies in warehouse	BM
					Loading required supplies in car	BM / driver
					Driving to screening points	BM / driver
		Screening routine	$I_{4.1}$	Immediate availability	Offloading supplies at screening points	BM / driver
					Discussing with volunteers which material for new screening points is lacking	BM
					Listing required material	BM
					Checking material at warehouse	BM
		Setting up screening points routine	$I_{5.1}$	Immediate availability	Preparing material at warehouse for new screening point	BM / V

Article III

"We Borrow the Earth from Our Children": How Organizations Create Desirable Futures Through Imaginaries of Sustainability

Lisa Harborth

Under review with Organization Studies

(1st Round)

Abstract

This paper explores the temporal foundations of organizing for sustainability by investigating how organizations create normative imaginations of (un)desirable futures. Whilst theories of future-making have well explained how present actions allow organizations to address futures through imaginaries, how these imagined futures gain a normative dimension and become desirable futures remains unexplored. To delve into, the paper examines the case of Patagonia Inc., an organization vastly invested in communicating about its sustainability efforts. It takes an abductive approach, focusing on the imaginaries of sustainability that emerge from Patagonia's storytelling, and studies how these imaginaries of sustainability allow for visions of (un)desirable futures to arise. The paper finds that these imaginaries contribute to the emergence of normative visions not only the future but also of past and present. It uncovers different dynamics, allowing Patagonia to juxtapose and interconnect these visions, leading to three processes contributing to the emergence of desirable futures: (1) preserving legacies for prosperity, (2) reviving ruins through revolution, (3) abandoning dreams in devastation. By illustrating how these processes unfold, this paper makes two contributions. First, it introduces the notion of *normative temporalization*, i.e., the process of evaluating visions of the future by juxtaposing normative visions of past and present. Second, it elaborates on how specific imaginaries of sustainability influence how distant futures become actionable.

Keywords desirability, future-making, imaginaries, sustainability, temporality

Introduction

> *So, it's time for a new experiment. Because the problems we face are more dire than ever. […] So, what's next? What's next is resilience. What's next is turning capitalism on its head, and putting our money where our mouth is. What's next is simple. It's humanpowered, and it's finding the joy in doing difficult things. […] What's next is unstoppable. […] Not a lot of people understand how serious we are about saving this planet. I'm dead serious. Next is saving our home planet.*
>
> (Patagonia: What's next? YouTube 2023)

With the predominance of climate change, decreasing biodiversity, and socioeconomic challenges, sustainability has become a core focus for organizations (Bansal, 2002; Hengst, Jarzabkowski, Hoegl, & Muethel, 2020). Organizing for sustainability confronts organizations with the dilemma of adapting their social, environmental, and economic actions in order gain long-term viability and persistence (Longoni & Cagliano, 2018). Being defined through the notion of inter-generational equity (World Commission on Environment and Development, 1987), aiming for sustainable development questions how the consequences for future generations can be mitigated in the present, thereby assuming that these future consequences can already be understood and evaluated today (Bansal, 2019; Bansal & DesJardine, 2014; Kim, Bansal, & Haugh, 2019; Slawinski & Bansal, 2012). Thus, sustainability relates to the consideration of a certain desirability, challenging organizations to engage in present-day practices that secure these desirabilities in and for the future (Gümüsay & Reinecke, 2022). However, as the ultimate needs and desires of future generations are, per definition, unknown and unknowable (Wenzel, Krämer, Koch, & Reckwitz, 2020), organizing for sustainability also implies addressing the uncertainties that correlate to these unknown challenges. It implies a consideration of the desirability of the future without being able to anticipate what these desires will entail. Here, research on future-making (Comi & Whyte, 2018; Wenzel, 2022) already provides a helpful explanation, addressing the question of how these unknown futures are enacted in the present by highlighting the role of imaginations and imaginaries that enable organizations to create ideas of how distant futures might look (Thompson & Byrne, 2022). However, whilst future-making helps us to understand how organizations create these imaginations of future realities, it remains unclear how these are framed as *desirable* futures (Gümüsay & Reinecke, 2022). Imagining desirable futures entails evaluating the normative underpinnings of these imaginations, requiring organizations to gain a shared understanding of what counts as desirable or not. Therefore, this paper focuses on the "guiding normative

conceptions of the future" (Gümüsay & Reinecke, 2022, p. 237) by asking: *How do organizations create normative imaginations of (un)desirable futures?*

In order to answer this question, this paper builds on an abductive approach (Timmermans & Tavory, 2012) for data collection and analysis. It examines the case of Patagonia Inc., an organization that is vastly invested in communicating about its sustainability efforts, being deeply engaged in creating imaginations of how a sustainable future might look. By analyzing how Patagonia uses imaginaries of sustainability to create a shared normative understanding of desirable futures, this paper develops two contributions. First, it introduces the notion of *normative temporalization*, i.e., the process of evaluating visions of the future by juxtaposing normative visions of past and present. This contributes to the literature on future-making by unravelling how imagined futures entail a normative underpinning. Second, it elaborates on how specific imaginaries of sustainability influence how futures become actionable, thereby contributing to research on imaginaries and their influence on how organizations act upon desirable futures.

Unravelling the Temporal Foundations of Organizing for Sustainability

With the overarching objective of attaining inter-generational equity (World Commission on Environment and Development, 1987), the pursuit of sustainable development challenges organizations to enact and manage the future in the present (Bansal & DesJardine, 2014; Slawinski & Bansal, 2012). Here, research has already pointed towards the temporal foundations of organizing for sustainability (Bansal & DesJardine, 2014; Slawinski & Bansal, 2012), emphasizing the challenge of enacting these future needs in present-day actions in order to achieve long-term survival, viability, and persistence (Kim et al., 2019). Consequently, organizing for sustainability is closely related to organizing time, posing organizations with the challenge of creating, enacting, and envisioning this unknown future (Gümüsay & Reinecke, 2022).

Earlier studies have already examined this underlying relationship between present-day actions and future sustainability (Bansal & DesJardine, 2014; Kim et al., 2019; Slawinski & Bansal, 2012, 2015). For example, Kim et al. (2019) studied how tea producers, confronted with severe resource constraints in the present, acted in the interests of sustainable development in the future. By adopting a long-present perspective, these tea producers were able to understand the present not as a trade-off with the future but rather as continuously unfolding. In a similar vein, Slawinski and Bansal (2015) studied how organizations deal with

intertemporal tensions between short- and long-term goals. They found that organizations enacting a clear boundary between present and future encouraged temporal myopia and short-term solutions, whilst juxtaposing present- and future-orientations enabled organizations to embrace temporal ambidexterity, thereby fostering sustainable development. These studies suggest that sustainable development can be achieved when the present is enacted to create a continuous flow to the future, thereby building on the idea that organizations are able to impact the future through present-day actions. This notion reflects an agentic perspective on the future, where organizational actors are able to enact events as emerging (Emirbayer & Mische, 1998, p. 968), providing them with the possibility of creating a temporal trajectory of organizational becoming (Hernes, 2016). Here, past, present and future continuously flow and evolve through time, thereby creating a multiplicity of "possibilit[ies] extending into past and future" (Hernes, 2016, p. 604).

However, whilst understanding these futures as enacted in the present provides a helpful perspective for uncovering how they unfold in a continuity of becoming (Tsoukas & Chia, 2002), the question of how these futures emerge remains only partially addressed. Here, studies of future-making (Comi & Whyte, 2018; Thompson & Byrne, 2022; Wenzel, 2022) provide helpful insights. Generally speaking, future-making describes how organizations create imaginations to gain a common understanding of how the future might look. These imaginations represent "fictional expectations" (Beckert, 2016; Thompson & Byrne, 2022, p. 248), guiding and orienting organizational actions. These studies argue that actors create imaginaries of futures through present-day practices, thereby shaping their perception of these imagined futures (Comi & Whyte, 2018; Thompson & Byrne, 2022; Wenzel, 2022). Creating these imaginaries allows them to attend "to questions of possibility" (Thompson & Byrne, 2022, p. 248) and, thus, to embrace future expectations in present-day practices.

Sustainable Futures as Desirable Futures

However, in order to organize for sustainability, organizations face the challenge of developing normative imaginations of how these sustainable futures would look. To do so, organizations are obliged to develop a shared understanding of what counts as sustainable (Roux-Rosier, Azambuja, & Islam, 2018), and thus to reflect on their normative underpinnings. Gümüsay and Reinecke (2022, p. 239) have introduced the notion of "desirable futures" as "acts of imagination [that] do not try to predict probable futures but [that] 'backcast' as to how they might become more likely". These desirable futures represent 'what-if' futures with unclear normative orientations (Gümüsay & Reinecke, 2022, p. 240) that enable us to distinguish "what

can be deemed as desirable" (Gümüsay & Reinecke, 2022, p. 240). So far, research on organizing for sustainability has not paid much attention to the underlying normativity of these futures. Whilst it highlights the need to engage in sustainable actions in the present (Bansal & DesJardine, 2014; Kim et al., 2019), the future remains a rather neutral sphere that is enacted through present-day practices (Hernes, 2016). It represents a realm of potentiality and multiple possibilities of how the future could evolve (Wenzel et al., 2020), without reflecting on how these potentials derive from normative foundations and how these normative foundations of possible futures are enacted in the present.

The challenge therefore remains in the "plurality of produced futures [that] instils uncertainty about the appropriateness and future viability of activities to be performed" (Wenzel et al., 2020, p. 1450). As Wenzel et al. (2020) argue, it is this uncertainty of appropriateness that characterizes the challenge of transforming the future from a purely neutral realm, created in present-day action, to an organizational purpose of enacting desirable futures (Gümüsay & Reinecke, 2022). Yet, only by creating a shared normative understanding of what count as desirable futures this desirability can be imagined in the present, thereby developing a realm for normative reflection and evaluation.

Imagining Desirable Futures

To unravel how these imaginations are deemed desirable futures, a closer consideration of the underlying functionality of these imaginations might be helpful. Here, research on imaginaries (Taylor, 2004) seem to provide a promising perspective. Coming from social theory, imaginaries are considered to reflect "broad shared conceptions of the world and humanity's place in it" (Augustine, Soderstrom, Milner, & Weber, 2019, p. 1936). They describe the "ways people imagine their social existence [… and] the expectations that are normally met" and by doing so, they also entail "the deeper normative notions and images that underlie these expectations" (Taylor, 2004, p. 23). Imaginaries function as a reflection of a common understanding, depicting the phenomenological experience of images or other mind-made objects that reveal themselves through images, stories, and legends (Augustine et al., 2019, p. 1936; Taylor, 2004). Through these, fundamental premises of the origin, functionality, and components of the social world are developed and spread that guide the moral basis of actions and decisions (Augustine et al., 2019, p. 1936). Thus, imaginaries create ideas of how the world should be experienced and interpreted, leading to taken-for-granted perceptions of these experiences that lack conscious reflection (Geiger, 2008). They unfold with a narrative character that provide fictional, tacit, and stylized descriptions of actual experiences (Augustine

et al., 2019, p. 1936), creating a mutual sense of knowing and a "shared sense of legitimacy" (Taylor, 2004, p. 23).

These normative underpinnings of imaginaries, however, remain quite specific to the subject the imaginaries describe. For example, Taylor (2004) reflects on the underlying normativity of social interaction in modernity, Augustine et al. (2019) focus on the evolving and changing normativity of geoengineering as a hypothetical technology, and Alacovska and Kärreman (2023) speak about the imaginary of the 'tortured artist' as a central figure of creative identity. Thus, whilst we know that imaginaries entail a certain normative underpinning in imagining the world, and we also know that organizations use these imaginaries to imagine the future, we do not understand yet how their normative underpinnings evolve. As a result, in order to understand how organizations enact, address, and imagine sustainable futures, we need to disentangle the underlying dynamics that explain how these futures become *desirable* futures. Therefore, this paper asks: *How do organizations create normative imaginations of (un)desirable futures?*

Methods

Research Setting

Being interested in the question of how organizations create normative imaginations of (un)desirable futures, this paper follows a call by Gümüsay and Reinecke (2022) to explore imagined alternatives of desirable futures. To address this question, I took a closer look at Patagonia Inc., an organization that is constantly engaged in imagining a sustainable world through its communication and marketing strategies. It is an organization that has widely been recognized for its extensive efforts to promote its understanding of sustainability and its socio-ecological values to its stakeholders. Thus, Patagonia represents an exemplary single case of an organization that is deeply engaged in sustainability communication (Fieseler, Fleck, & Meckel, 2010), allowing me to gain deep and rich insights into the phenomenon under study (Siggelkow, 2007). As the research question derived both from a theoretical interest as well as an empirical curiosity, this paper takes an abductive approach to data collection and analysis (Sætre & Van de Ven, 2021; Timmermans & Tavory, 2012). This approach allowed me to incorporate existing explanations of future-making and desirable futures while taking a closer look at Patagonia's communicative efforts to create sustainable futures.

Since its foundation in 1973, Patagonia has developed a wide expertise in communicating about its sustainability efforts. Through a multitude of marketing and communication strategies,

the organization has aimed at convincing stakeholders about its sustainability efforts, thereby continuously highlighting its own perception about what a sustainable life would look like. Examples of these communicative efforts include campaigns such as 'Don't Buy this Jacket' (Patagonia, 2011), marketing engagements such as the '1 % for the planet' club (Patagonia, 2023a), and actions to increase customer loyalty such as the 'Worn Wear' program (Patagonia, 2023b). These engagements were widely communicated and promoted. Its latest coup, gifting the entire company to a foundation and a non-profit, was accompanied by the slogan "earth is now our only shareholder" (Gelles, 2022; Patagonia, 2022) that again reinforced the organization's perception as a "sustainability pioneer" (Gunther, 2013). These efforts of continuously communicating about the organization's vision of a sustainable world are captured and published in its own blog 'Patagonia Stories' (www.patagonia.com/stories). Here, leading figures and other "Patagonians" express their socio-environmental stances and actions. In form of written text, pictures, and movies, Patagonia creates an "institutional memory" (Rassler, 2017) that reflects the organization's perspective on current environmental and social challenges as well as its visions for a sustainable world.

Data Collection

Following this research interest, the data collection is based on Patagonia's storytelling, represented through its blogposts. In order to gain an in-depth understanding of its imaginations of (un)desirable futures, I collected all the available blogposts and films from Patagonia's blog (www.patagonia.com/stories) from between February 3, 2007 (date of the first blog post) and October 19, 2022 (marking the date of the announcement that the ownership rights of the organization had changed), allowing me to gain a longitudinal perspective on the subject under study (Langley, 1999). This resulted in a database of 2,088 blogposts with a total reading time of 9,870 minutes (estimated by Patagonia) as well as 74 films with a total length of 1,686 minutes. Additionally, I read two books about the organization: *The responsible company* (Chouinard & Stanley, 2013) and *Let my people go surfing (Chouinard, 2016)* in order to gain an overview of its core values and business philosophy.

Data Analysis

Given the research question, I followed a multi-step, abductive analysis (Augustine et al., 2019; Sætre & Van de Ven, 2021). As a form of reasoning that allows the researcher to iterate between interpreting data and developing theory (Augustine et al., 2019), abduction unfolds as an "ongoing act wherein 'discovery' and 'justification' are inseparable moments"

(Timmermans & Tavory, 2012, p. 170). Accordingly, my analysis evolved in three distinctive steps, where each step provided me with findings that were the foundation for the subsequent step of analysis.

After familiarizing myself with the data, I started by identifying imaginaries of sustainability, as these represent central facets of how organizations create and enact futures (Augustine et al., 2019; Thompson & Byrne, 2022). As imaginaries reflect phenomenological experiences of the word that "arise as much from desires as from sensory observation and experience" (Augustine et al., 2019, p. 1936), they provide a meaningful way to uncover implicit phenomena such as the desirability of imagined futures. Thus, to identify the prevailing imaginaries of sustainability that are created through Patagonia's stories and to gain an in-depth understanding of their nature, I followed Augustine et al.'s approach (2019) to operationalize these alongside a set of high-level dimensions with several underlying components. Whilst the high-level dimensions represent abstract ways of understanding the world, their underlying components provide concrete details about the nature of these dimensions. I began by reading through my data and gaining initial ideas of which imaginaries of sustainability were prevalent, to then identify different high-level dimensions. Similar to Augustine et al. (2019), I started by focusing on the imaginaries' *cosmology* and *moral basis* that reflected the universal foundations for the particular imaginaries. The dimension *cosmology* is further defined through the underlying components of *privileged epistemic domains* and *authoritative actors* that enable to uncover how sustainability is experienced, as well as who is able to pursue it. The dimension *moral basis* is defined through the underlying components *ethos*, *values,* and *evaluation criteria*, reflecting the foundational attitude and normativity of how sustainability is perceived and how it is evaluated. However, whilst reading through the data it became apparent that these imaginaries also entailed a *temporal vision* as another high-level dimension. Through this temporal vision, the imaginaries not only map towards the future (as in the case of Augustine et al., 2019), yet also describe how sustainability unfolds within different temporal realms (i.e. past, present or future). Here, I identified three underlying components that were characteristic of temporal vision. First, the imaginaries emerged in certain *temporal roots*, describing the temporal realm in which sustainability was originated. Second, they depicted a particular *temporal purpose* that reflected an overarching temporal goal towards which becoming sustainable was oriented. Finally, *temporal linkages* allowed me to uncover how the imaginaries' roots and purpose were interrelated. Whilst the high-level dimensions of *cosmology* and *moral basis,* and their related underlying components were derived abductively from prior literature (Augustine et al., 2019), the dimension of *temporal vision* evolved

inductively throughout the process of identifying and operationalizing these imaginaries. This process led to the identification of five different imaginaries of sustainability: (1) sustainability as spirituality; (2) sustainability as regionalism; (3) sustainability as circularity; (4) sustainability as activism, and (5) sustainability as governance. Whilst the preliminary analysis of these imaginaries reached its end when I experienced saturation, I continuously checked and rechecked these during the next steps of the analysis. This, however, did not lead to substantial changes in their definitions. A detailed description of these five imaginaries of sustainability can be found in Table 1 (see online Appendix).

Having identified these imaginaries, I went back to my theoretical framework to question what stood out the most at the nexus of theory and data (Timmermans & Tavory, 2012, p. 179). I realized that in order to understand how organizations create normative imaginations of *(un)desirable futures*, it was not sufficient to just pay attention to these imaginaries, but I also needed to dismantle how these acts of imagination unfolded. It became clear that the future as well as past and present are enacted in the present, therefore rendering their separation artificial (Hernes, 2016). Thus, in order to unravel how the normative underpinnings of desirable futures are created, it was necessary to also unravel the normative underpinnings of past and present. Hence, I opened up the analysis to a broader perspective and focused on the value statements within the stories that created normative visions of past, present, and future. To do so, I engaged in a structured coding approach (Miles & Huberman, 1994), focusing on the identification of "the corroboration of generalizations, patterns, outliers, and salient themes in the data" (Timmermans & Tavory, 2012, p. 180), allowing me to describe different visions of past, present, and future in detail. Reading through my data again allowed me to detect different descriptions of past, present and future, which I then clustered alongside similarities and differences, allowing me to aggregate different value statements describing past, present, and future. This process led to the identification of six vision describing how past, present, and future are imagined: (1) glorious pasts; (2) vulnerable pasts; (3) idealized presents; (4) destructed presents; (5) destructed futures; (6) desirable futures.

Whilst this second step of my analysis provided me with insights into how past, present, and future are envisioned separately, it did not unravel the linkages between these visions and, therefore, how they contributed to the creation of the normative underpinnings of these imagined (un)desirable futures (Gümüsay & Reinecke, 2022). As past, present and future are understood to be enacted and created in the present (Hernes, 2016), it remains pivotal to understand the dynamics that contribute to their creation. Therefore, it appeared essential to

disentangle the underlying dynamics that allowed the organization to connect these visions of past, present, and future and which then allowed the imagined desirable futures to emerge.

To dismantle the linking processes between these normative visions of past, present, and future, I started by visually mapping these, allowing me to illustrate the space of possible paths (Pentland, Mahringer, Dittrich, Feldman, & Wolf, 2020, p. 9). To then gain a systematic understanding of these paths, I focused on the path's actual performance as a unit of analysis. This approach followed the operationalization proposed by Pentland et al. (2020, p. 9) that differentiates between the *path* as a "possible sequence of actions of how a process could unfold", the *performance* as a "specific enactment of one path", the *action* as "what people do or say", representing a node of the path, and the *relation,* describing an "empirically observable sequence of two actions" within this path. To disentangle these different parts, I again engaged in a process of systematic coding (Miles & Huberman, 1994), allowing me to discern the performed paths as well as the related underlying dynamics. I started by reviewing the prior steps of my analysis, noting that these results (i.e. the visions of past, present, and future) already indicate the actions of these paths. By reading through the data again, I now focused on how these visions were created, specifically focusing on the single *actions*. Next, I moved back and forth between the data and the previously identified actions to further disentangle how these visions were interrelated and how these relations were enacted. This allowed me to demarcate specific *relations* between the particular actions. By engaging in an iterative process of going back and forth between the actions and their relations, I could unravel specific patterns of performances that were enacted to create (un)desirable futures. This last step contributed to the development of three *paths* along which normative imaginations of (un)desirable futures are created: (1) preserving legacies for prosperity, (2) reviving ruins through revolution, and (3) abandoning dreams in devastation. A display of this final round of coding can be found in Table 2.

Findings

In this article, I explore how organizations create normative imaginations of (un)desirable futures. Through the different steps of my analysis, I could unravel paths describing processual dynamics that enabled Patagonia to create normative evaluations of what counts as (un)desirable. My findings show that Patagonia engaged in three different paths of future-making that supported the emergence of an underlying normativity in envisioning (un)desirable futures. By enacting these paths, Patagonia is thus able to (1) preserve legacies for prosperity,

Actions	Relations	Paths
▪ Describing how sustainable actions preserve environment and indigenous life ▪ Describing how malpractices destroy ecosystem and indigenous traditions ▪ Contrasting the normative underpinnings of these two descriptions	**Juxtaposing** visions of idealized vs. wrecked presents	**Preserving legacies for prosperity**
▪ Remembering the former beauty of the world with protected ecosystems, valuing ancient cultures ▪ Acknowledging how sustainable practices used to preserve this world ▪ Reflecting on their normative underpinnings	**Retracing** visions of a glorious past	
▪ Adopting imaginaries of sustainability ▪ Encouraging sustainability as spirituality, regionalism and circularity to wish for desirable futures ▪ Envisioning futures that preserve desirable values from past and present	**Embracing** to envision desirable futures	
▪ Describing how sustainable actions preserve environment and indigenous life ▪ Describing how malpractices destroy ecosystem and indigenous traditions ▪ Contrasting the normative underpinnings of these two descriptions	**Juxtaposing** visions of idealized vs. wrecked presents	**Reviving ruins through revolution**
▪ Remembering the former fragility of the natural environment and indigenous cultures ▪ Acknowledging how malpractices practices used to harm this world ▪ Reflecting on their normative underpinnings	**Retracing** visions of a vulnerable past	
▪ Adopting imaginaries of sustainability ▪ Encouraging sustainability as activism and governance to fight for desirable futures ▪ Envisioning futures that revive desirable values from past and present	**Defying** to envision desirable futures	
▪ Describing how sustainable actions preserve environment and indigenous life ▪ Describing how malpractices destroy the ecosystem and indigenous life ▪ Contrasting the normative underpinnings of these two descriptions	**Juxtaposing** visions of idealized vs. wrecked presents	**Abandoning dreams in devastation**
▪ Remembering the former fragility of the natural environment and indigenous cultures ▪ Acknowledging how malpractices practices used to harm this world ▪ Reflecting on their normative underpinnings	**Retracing** visions of a vulnerable past	
▪ Failing to adopt imaginaries of sustainability ▪ Envisioning futures that capitulate to undesirable values from past and present	**Surrendering** to envision destructed futures	

Table 2. Coding Structure

(2) revive ruins through revolution or (3) abandon dreams in devastation (see Figure 1). In the following section, I outline each process in detail.

Preserving Legacies for Prosperity

The first process uncovers how Patagonia develops visions of desirable futures by embracing the desirability that is reflected in visions of idealized presents and glorious pasts. This process unfolds through particular dynamics in which Patagonia juxtaposes two contrasting visions of the present to retrace a vision of glorious pasts. These dynamics enable Patagonia to evaluate their underlying normativity to then create visions of desirable futures.

Juxtaposing visions of presents: The process of 'preserving legacies for prosperity' starts through reflections about the present status quo. Patagonia thereby depicts two different and opposing perspectives, envisioning the present as either idealized or wrecked:

Idealized presents: A vision of the present as idealized is ubiquitous throughout Patagonia's stories. Here, the world is portrayed as a place where nature is protected through sustainable action, allowing actors to admire the continuous beauty of the planet. It is described as an "enduring love affair" (O'Neill: The Magic of Yosemite National Park) with places that are still "overwhelmingly wild" (Brassy: Crossing a Glacier in Wrangell). For example, in the story The Magic of Yosemite National Park, the author describes how he experiences this national park in the present:

> *I thrive when engaged within the array of experiences that await a willing adventurer, be it dipping into frigid pools for a 'clarity baptismal', […] The magic of Yosemite National Park inspires me to live my best life possible. And I know that to personally experience the park's 360° physical and spiritual grandeur I must strive to achieve not only the great heights of its spectacular summits but also to sit quietly in its meadows and let the wonder come to me.* (O'Neill: The Magic of Yosemite National Park)

Here, the present is represented by the "physical and spiritual grandeur" of Yosemite. It is depicted as being full of "wonder[s]", thereby allowing the author to advocate for the "ongoing preservation of these treasures" in the present:

> *My relationship to the terrain and the people of Yosemite creates essential meaning in my life and it's my role to sustain that connection. I am growing up and still "going up" and I realize that these walls aren't going anywhere, only I am.* (O'Neill: The Magic of Yosemite National Park)

Hence, envisioning this idealized present creates an appreciation of the beauties of this planet and the wild places that still exist. It highlights their ongoing continuity, and therefore underlines the need to preserve and protect this envisioned idealization.

Wrecked presents: In contrast, the present is also envisioned as wrecked. Here, the world is irreversibly falling apart, with ecosystems being destroyed. For example, the previous description of Yosemite National Park is contrasted with the recognition of the damage that Yosemite is experiencing:

> *There is a popular grievance involving the crowding of our national parks, that our expanding devotion is detrimental and we must act to control the pressure of vehicles and people. These are genuine concerns, especially considering population growth and development near park borders. Indeed, Yosemite suffers from traffic jams and at peak times some of the most popular trails resemble mass transit urban walkways.* (O'Neill: The Magic of Yosemite National Park)

Here, the present is reflected through "pressure", leading to grievance and suffering. The National Park is described as being destroyed through growing populations, traffic jams and crowding. By emphasizing this ongoing devastation in the present, the story depicts how the previously described beauty of its "physical and spiritual grandeur", characterizing the idealized present, is now juxtaposed with an ongoing degradation of the wrecked present.

By juxtaposing these opposing visions of the present, their normative underpinnings are compared and contrasted. The present is depicted as either idealized or wrecked, describing two different perspectives on the current conditions of the world. Whilst envisioning the present as idealized emphasizes its desirable characteristics and features, creating the vision of a wrecked present focuses on its undesirable qualities. Juxtaposing these two visions thus allows Patagonia to develop an understanding of their normative underpinnings and to evaluate which of these scenarios counts as desirable.

Retracing a vision of the past: The opposing normativity of these contrasting visions of the present are then reflected upon by retracing a vision of the past. Here, Patagonia envisions a previous state of the world that foregrounds the vision of an idealized present:

Glorious pasts: Now, Patagonia envisions a previous state of the world where the natural environment was still intact, biodiversity was flourishing, and minorities had their rights protected, leading to a vision of the past as glorious. It emphasizes the illustrious beauty of the former world, where nature is portrayed as "mystical and primordially ancient", unfolding in "residual eternity" (O'Neill: The Magic of Yosemite National Park). For example, in the story All Trails Belong to Mother Earth, the author reflects on a mountain bike trip through the Ute Pass trail, a path crossing the lands of the Diné (Navajo) Nation. Being a Diné herself, she describes how crossing this path allows her to connect deeply with her own past:

> *My mind went quiet, and all I could hear was my heart beating with Mother Earth. […] My joy came from the power felt in this place and from the ancestors' spirits that never left.*

> *They always remind me that Indigenous peoples defied the founding of our country and survived to create a legacy, a culture of resistance.* (Hutchens: All Trails Belong to Mother Earth)

Here, the vision of the past is characterized through the "legacy" and the "culture of resistance" that represents her ancestors. Remembering these characteristics allows the author to embrace the beauty of their way of living and to adopt the "power" of their "spirits":

> *Whenever I set foot (or tires) on the land, I recognize and honor not only the land but also the people today who still call these places their sacred homeland.* (Hutchens: All Trails Belong to Mother Earth)

Hence, being in these places allows the author to retrace this glorious past, and to reimagine and remember the power her ancestors brought to the beauty of their homelands. It highlights the sacredness of untouched nature and protected indigenous tribes that characterized the past.

Retracing this vision of a glorious past enables Patagonia to create a link between the previously depicted visions of idealized and wrecked presents whilst simultaneously resolving the juxtaposition of these presents. By envisioning a glorious past, underlying values are foregrounded that appear as desirable. Retracing this vision of glorious pasts emphasizes the normative underpinnings that have already been shown in the vision of idealized presents, yet now are further reinforced as they also characterize the framing of the past. It highlights the desirability attached to these glorious pasts, thereby creating the foundation for the preservation of their normative underpinnings into the future.

Embracing a vision of the future: As Patagonia reflects on its visions of idealized presents and glorious pasts, it creates a normative ground through which to embrace visions of the future. Patagonia hereby embraces the previously developed normative underpinnings of glorious pasts and idealized presents to envision desirable futures:

Desirable futures: Patagonia's vision of the future fundamentally relies on its own heritage as well as the transfer of values from past and present to the future. For example, in the story Taking the Long Way Home, the authors reflect on the native art of skiing and how it is affected by the snow sports industry. They emphasize the spiritual connection between indigenous people and their homelands, allowing them to preserve nature for future generations:

> *The past needs to be acknowledged to build upon for the future, and Bradley sees a way forward by looking back. […] "Honoring our ancestors and future generations." In reconnecting with her traditional homelands, she hopes she can offer a path for skiers and snowboarders on all Indigenous lands, by cultivating reciprocal relationships with the land and local communities rather than simply extracting an experience.* (Bradley/Tufts: Taking the Long Way Home)

Here, the authors recognize that acknowledging the past is essential to create an idea about the future. "See[ing] a way forward by looking back" describes the underlying notion that creating a future requires reconnecting with nature and the traditions of the authors' indigenous ancestors. This vision of desirable futures emphasizes a spiritual connection with nature, foregrounding the value of a "reciprocal relationship" between land and local communities to change the way in which skiing ins practiced in the future. This vision of desirable futures embraces the values and virtues of the past and to transfer these to the future. It is this process of "honoring [her] ancestors" that give the authors the motivation to embrace future endeavors:

> *I'll never run out of things to re-learn or opportunities to continue re-connecting, […] And it is 're-' everything. Re-storyation. […] "it is within you." All the teachings and connections are within me. I just need to choose to put in the intentional effort to cultivate them.* (Bradley/Tufts: Taking the Long Way Home)

For the authors, desirable futures unfold by embracing the continuity of life. These "opportunities to continue re-connecting" and the overarching notion of "'re'-everything" enable them to appreciate the need for continuous learning in order to foster a sustainable future. This circular perspective allows them to acknowledge their cultural heritage, i.e., the past, as well as their immanent and personal qualities and experiences, i.e. their present. Through their "intentional effort to cultivate" these characteristics, they are able to envision a desirable future which emerges from the interplay between idealized presents and glorious pasts:

> *It's really exciting to know that this isn't the end of a journey to come home—the journey home is constant, every day, and something that you have to choose to do.* (Bradley/Tufts: Taking the Long Way Home)

By elaborating on this spiritual, circular, and regional connection between their ancestors, the natural environment, and the local communities, the authors foster an understanding of how these visions of glorious pasts and idealized presents can be transformed into visions of desirable futures.

Here, in particular, the imaginaries of *sustainability as spirituality*, *sustainability as regionalism*, and *sustainability as circularity* come into play, as these contain a shared understanding of how these values from past and present could be preserved and nurtured into desirable futures. They share the common understanding that sustainability is achieved by remembering, recognizing, and rehabilitating desirable values from past and present that then preserved for the future. The imaginary of *sustainability as spirituality* thus depicts the glorious past as sacred spaces of "traditional homelands" that still exist in an idealized present, allowing for the fostering of a "reciprocal relationship" between athletes and local communities. The imaginary of *sustainability as circularity* describes the present as an opportunity to "re-

everything", depicting an idealized present that allows for an ongoing connection with land and people. The imaginary of *sustainability as regionalism* fosters embeddedness in the local community and in the authors' homelands, enabling the creation of a close connection with the land and the region to preserve its values and its heritage. Thus, the temporal visions of sustainability that these imaginaries foster allow Patagonia to embrace the normative underpinnings of these envisioned pasts and presents, and to transfer these to visions of desirable futures.

Reviving Ruins through Revolution

In this second process, Patagonia develops visions of desirable futures by defying the undesirability that is reflected in visions of wrecked presents and vulnerable pasts. This process unfolds as Patagonia opposes and evaluates the normative underpinnings of these visions, thereby creating visions of desirable futures.

Juxtaposing visions of presents: Similar to the first process described above, the process of 'reviving ruins through revolution' juxtaposes visions of wrecked and idealized presents. Here again, Patagonia describes through two opposing frames the current status quo of the world, allowing actors to compare and contrast these two visions of wrecked and idealized presents:

Wrecked presents: Patagonia's vision of the present as wrecked highlights "the daily destruction of our beautiful planet" (McDivitt Tompkins: Patagonia Park and Pumalín Park Officially Join Chile's National Park System). It emphasizes the continuous and ongoing malpractices that jeopardize the social and ecological integrity of our world. For example, in the story For the Land We Inhabit, the author describes the development of the valley of Cajón del Maipo in Chile:

> *Out of all the industries that jeopardize the integrity of this valley, there's one that can give it the final blow, Alto Maipo* **[…]** *a mega hydropower plant […]. There's no real consumer demand for this energy right now in Chile. […] This potential energy project is mainly to power the anticipated needs of future mining projects in the area, which will lead to even more negative environmental impacts on this region.* (Cancino: For the Land We Inhabit)

Here, the author highlights the present as being destroyed by unnecessary and environmentally harmful activities. He emphasizes how the extractive activities of the hydropower plan are destroying the natural ecosystem, causing a deterioration of living conditions. As he highlights that these activities represent "just the tip of the iceberg", he creates visions of wrecked presents that also impact other people living in this area:

> *Despite the fact that everybody who lives in this region depends on the ecological integrity of this area, there's a small population that lives in the highest section of the watershed*

> *close to the mountains, and they are even more vulnerable to the direct impacts of these foreign-backed extractive projects.* (Cancino: For the Land We Inhabit)

The author emphasizes the vulnerability of the local communities and of the ecological integrity of the region. Both suffer from "these foreign-backed extractive projects" that harm people and the environment. By highlighting the devastating power of these activities that increase the vulnerability of local people, the author points towards the undesirability of this vision of a wrecked present.

Idealized presents: This vision of a destructed present is then juxtaposed with a vision of an idealized present. Here again the present is depicted as a realm of flourishing ecosystems and social justice. Hence, the description of the Maipo valley not only focuses on its destruction, but also on its existing beauty:

> *This place is […] charged with natural energy, one that is a source of inspiration for many artists, writers, art creators, musicians and people who find creativity by staying tuned into a different frequency. […] Access to the mountains and rivers attracts many outdoor enthusiasts and athletes too, who practice their sports and activities in the valley and want to experience a connection with nature in wild places.* (Cancino: For the Land We Inhabit)

The author highlights the "natural energy" that currently characterizes this valley. It allows individuals to connect with "wild places", and enables artists and creative minds to stay "tuned into a different frequency". By highlighting the valley's scenic landscape and its unique opportunities for "outdoor enthusiasts" to connect with land and nature, the author emphasizes aspects of wilderness that are also obtained in the present. Describing these optimal conditions fosters an impression of an idealized present, allowing both locals and visitors to immerse themselves in an exceptional way of living:

> *This place is home for those who were born here […]. This valley is also where the dreamers live, the ones that ran away from the city to reconnect with nature […]. They are also the ones who wanted to start their own business, and the ones going a step ahead pushing to protect nature and their environment. We have a lot to learn from them.* (Cancino: For the Land We Inhabit)

Thus, the current status quo of the valley is described as providing a "home" for different styles of living. It depicts a present that allows the people to embrace their dreams, to "reconnect with nature" and to enjoy its quietness as well as its opportunities. By acknowledging that "We have a lot to learn from them", the author emphasizes how this idealized present juxtaposes with the previously envisioned destructed present.

By juxtaposing these two visions of the present, their normative underpinnings are, again, compared and contrasted. Emphasizing environmental destruction and community

misplacement foregrounds the undesirability of this envisioned wrecked present, it is contrasted with a vision of protected nature and social justice in an idealized present. Juxtaposing these two visions enables Patagonia to focus on their normative underpinnings, thereby obtaining an evaluative perspective on their desirability.

Retracing a vision of the past: This juxtaposition is then resolved by retracing a vision of the past. However, in contrast with the first process, Patagonia now foregrounds a former world that already experienced uncertainty and danger of destruction, thus leading to a vision of a vulnerable past:

Vulnerable pasts: Here, Patagonia recalls the fragility of nature and social justice that was already prevalent in the past. It recognizes how ecosystems were in danger of collapsing and how political decisions were threatening the protection of national parks and minorities, thereby leading to a vision of a vulnerable past. This vision recognizes that "incomparable cultural resources and undeveloped natural landscapes cannot be restored once they are disturbed or destroyed" (Patagonia: Five Reasons Bears Ears Needs to be Protected as a National Monument). For example, in the story It's All Home Water: Cuyahoga Comeback, the author describes the history of the Cuyahoga River in Ohio. It is described as the "crown jewel" that is currently "abundant with wildlife" (Vermillion: It's All Home Water), whilst it also experienced a not so glamorous past:

> *Industry swept in with a vengeance. […By] the mid-1800s, Cleveland became a hotspot for manufacturing, particularly along the lower portion of the river near the city and lake. Iron furnaces, oil refineries, chemical factories and lumberyards dominated the Cuyahoga riverbanks. With virtually no governmental regulations, these companies 'were just using the river as their trash can,' says Ohioan Jordyn Stoll […]. The Cuyahoga became a flowing landfill, but the city took an out of sight, out of mind approach.* (Vermillion: It's All Home Water)

The author describes a past that was characterized by neglectful behaviour, allowing companies to transform this "crown jewel" into a "trash can". It depicts a time that allowed organizations to litter their waste without considering its consequences for environment or people. In consequence, the river turned into "Chocolate-brown, oily, bubbling with subsurface gases [that] oozes rather than flows" (Vermillion: It's All Home Water). Simultaneously, the river's ecosystem was also affected by several dams that interrupted its flow:

> *Dams were integral to 19th-century industry, but they worked hand in hand with manufacturing waste to obliterate the Cuyahoga's health. 'Dams change a river system to one that's more like a lake,' Stoll says. This meant limited water flow on the Cuyahoga, with warmer water and fish that can't pass upstream*. (Vermillion: It's All Home Water)

Thus, the author again describes how unsustainable actions led to a loss of diversity, harming the natural habitat of local fish. It represents a past that is characterized by its vulnerability as a lack of governmental regulations and scant environmental protection contributed to the ongoing destruction of the river. In describing the previous condition of the river, the author highlights the fragility of nature, depicting the past as vulnerable.

Retracing this vision of a vulnerable past enables Patagonia to link it to its earlier visions of idealized and wrecked presents whilst resolving their immanent opposition. By depicting the past as vulnerable, underlying norms and values are foregrounded that appear as undesirable, and thus require opposition and defiance to create desirable futures. Retracing a vision of vulnerable pasts allows Patagonia to reinforce the undesirability of the envisioned wrecked presents. It highlights the devastating outcomes of inaction in the present, allowing Patagonia to oppose their normative underpinnings in order to develop a vision of desirable futures.

Defying a vision of the future: By creating these visions of wrecked presents and vulnerable pasts, Patagonia develops a shared understanding of the normative underpinnings of these visions. By evaluating and defying these, it is then able to create visions of desirable futures:

Desirable futures: Patagonia now strives for the creation of visions of desirable futures. These futures stand in stark contrast to the vision of vulnerable pasts and wrecked presents, as these envision a world where sustainable action is prevalent. For example, in the story Speak Up Now for America's Arctic, the author encourages democratic processes that foster social and ecological justice. He emphasizes the need to lobby and petition in order to protect the environment in the future:

> *Oil and gas development threatens to forever change and likely destroy this treasured place, which is sacred to the Gwich'in people and is a part of America and the world's natural inheritance. […] If we fail to protect it, we will fail our children and grandchildren. And we will fail the generations before us who fought to ensure that this place remains wild and undisturbed long into the future.* (Udall: Speak Up Now for America's Arctic)

The author expounds on the dangers of extractive industries to the future of "natural inheritance[s]" and the role of political actors in determining whether and how these activities might be discontinued. To empower the opposition to these threatening developments, the author points to the important role of rightful governance in ensuring desirable futures. He highlights that only by fighting for the rights of indigenous people and the protection of the land, can these dangers be overcome and desirable futures be secured:

> *In Congress I've introduced […] legislation to protect the Arctic as wilderness—the way it is today—and will join legislative efforts to repeal the drilling authorization that was slipped into the GOP tax plan. It's critical that we build support for this legislation across*

> *the country—so that members of Congress on both sides of the aisle hear from their constituents and appreciate what's at stake in this fight.* (Udall: Speak Up Now for America's Arctic)

Thus, in order to preserve the current Arctic "wilderness", democratic governance processes are required and need to be supported "across the country". Here, the author highlights the need to "appreciate what's at stake in this fight" in order to prevent damage in the future. In his suggestions for how a desirable future can be obtained, the author underlines his vision of flourishing nature and protected indigenous communities that are safeguarded through democratic processes. It creates a vision of a desirable future that emerges from political engagement.

Yet, the author also acknowledges the need for community engagement and political activism to convince the masses to stand up against the extractive projects:

> *I am proud to stand with the committed citizens across this nation who are ready to pull out all the stops to save the Arctic refuge—and to honor the Gwich'in people's request to protect their homeland and their way of life. Americans fought off the robber barons 100 years ago to protect our public lands. Together we can do it again.* (Udall: Speak Up Now for America's Arctic)

As he recalls the "committed citizens across the nation" who previously succeeded in protecting "public lands" 100 years ago, whilst emphasizing that "together [they] can do it again", he again raises awareness of the need for activism to fight for a sustainable future. For the author, protecting this future is a question of honoring indigenous rights and preserving indigenous homelands, in opposition to Patagonia's previously created vision of vulnerable pasts.

Hence, he highlights the importance of imaginaries of *sustainability as governance* and *sustainability as activism*, thereby acknowledging that the wrong-doings of the past and present have to be defeated in order to safeguard the visions of idealized presents into the future. These imaginaries share a common understanding that desirable futures are achieved by fighting past and present wrong-doings, as well as by advocating for the right cause. Through the imaginary of *sustainability as activism*, awareness is raised of the need to include the masses in order to establish a voice. It allows us to consider visions of wrecked presents and vulnerable pasts as a realm that must be overcome through the engagement of many individuals in order to create visions of desirable futures. It opposes the normative underpinnings of these visions by focusing on the normativity that unfolds in the vision of idealized presents. Also, the imaginary of *sustainability as governance* highlights the importance of democratic structures in fighting and legislating for a sustainable cause and to overcome the realities of wrecked presents and

vulnerable pasts. Again, this approach reflects the normative underpinnings of idealized presents that unfold in stark contrast to the undesirability of wrecked presents and vulnerable pasts. By defying the latter, visions of desirable futures emerge. Hence, the normative underpinnings of these imaginaries build upon the previously developed normative visions of vulnerable pasts and wrecked presents that need to be defied in order to create visions of desirable futures.

Abandoning Dreams in Devastation

The final process reveals how Patagonia fails to develop visions of desirable futures as no imaginaries of sustainability can be developed. Here again, Patagonia juxtaposes visions of wrecked and idealized presents to then retrace visions of vulnerable pasts. However, as no imaginaries of sustainability evolve through this process, no visions of desirable futures are developed.

Juxtaposing visions of presents: Similar to the two previous processes, in the process of 'abandoning dreams in devastation' Patagonia again juxtaposes two perspectives on the current status of the world, envisioning the present as either wrecked or idealized:

Wrecked present: Again, Patagonia creates a vision of the current status of the world as wrecked. It emphasizes extensive resource extraction leading to a loss of biodiversity and social injustice. For example, in the story Oak Flat Is No Sacrifice Zone, the author describes how a copper mine is threatening the area of Oak Flat, a sacred territory to several indigenous tribes:

> *Our push for lower-carbon energy contributes to the demand for materials mines like Resolution Copper will produce: […] battery packs, electronics and our electrical grid all drive the global demand for copper. The screen on which you are reading these words, the equipment used to charge your device, perhaps the solar panels from which this electricity came from all need copper.* (Necefer: Oak Flat Is No Sacrifice Zone)

Here, the author highlights the dark sides of actions that eventually seem to provide a more sustainable solution, such as "lower-carbon energy". He raises awareness about the "global demand for copper", which supports extractive industries that harm the environment and threaten indigenous communities in the present:

> *There are no provisions to address environmental protection; there are no royalty provisions included for tribes or the federal government; and there is no protection for tribal interests or consultation.* (Necefer: Oak Flat Is No Sacrifice Zone)

Thus, by exemplifying how allegedly sustainable solutions threaten the protection of sacred sites and the rights of minorities, an image of a demolished and hopeless world arises. It describes the outcomes as devastating, highlighting the undesirability of these activities and the

related consequences. By depicting the present as a place where there are "no royalty provisions" to address environmental protection and "no protection for tribal interests", the author contributes to a vision of a wrecked present.

Idealized presents: Nevertheless, this vision of a wrecked present is juxtaposed with a vision of an idealized present. Again, the area of Oak Flat is described, now being depicted through its wonders, emphasizing how the protection and preservation of nature allows "Patagonians" to enjoy their surroundings whilst respecting the natives in their homes:

> *I was surprised how cold it was on a mid-April morning in Central Arizona. […] Chi'chil Biłdagoteel, or Oak Flat, is sacred to the San Carlos Apache Tribe and plays an important role in their medicine, food and ceremony. […] We walked along the paved road that extended from our camp to a dirt pullout. […] Red manzanita bark glistened in the morning light.* (Necefer: Oak Flat Is No Sacrifice Zone)

By describing the still existing beauties of this area that "glisten[ ] in the morning light" whilst recognizing its sacredness to the indigenous communities, the author highlights the uniqueness of Oak Flat. He recognizes that it is essential for indigenous communities as well as offering climbers an unparalleled experience:

> *For us, as Indigenous climbers, this place represents an intersection of our identities. […] The four of us [Tara Kerzhner, Aaron Mike, Tommy Caldwell and Len Necefer] were here to spend time in this place together, to learn from the land and to learn more about the struggle to protect this area from a new mining project that could erase Oak Flat within our lifetimes.* (Necefer: Oak Flat Is No Sacrifice Zone)

Hence, the author highlights its interconnectedness with their own identity. For the author, it is a place that "represents an intersection of [their] identities", inviting them to "spend time […] together", to "learn from the land" as well as to keep up the fight for its protection. It renders it an essential area for their community, not only as climbers but also as indigenous people. By highlighting these characteristics and aspects, the author thus describes a vision of an idealized present that is in danger of destruction.

Retracing a vision of the past: By retracing a vision of the past, these conflicting normative underpinnings of the envisioned presents are again being resolved. Patagonia hereby describes a former world that was already challenged by a lack of environmental and social protection, leading to a vision of a vulnerable past:

Vulnerable pasts: Here again, Patagonia reflects on the lack of protection of nature, ecosystems and social justice, describing an overwhelming fragility that was overarching in past times. By recollecting situations that were not only characterized by protective efforts but illustrate the fragility of the natural world, Patagonia depicts a vision of a vulnerable past. For

example, in the story Undeniable, the author chronicles the history of the Blackfeet territory and the Badger-Two Medicine land, a sacred area for the Blackfeet Nation. This area is home to the Blackfeet people, a region that they would call their "world" (Randall: Undeniable). In the 19th century, a battle between indigenous people, the government, and oil and gas drilling companies broke out that repeatedly took land away from indigenous communities:

> *In the 1870s, without negotiation, consent or payment, the US government took Blackfeet land by moving the southern border north […]. Then in the 1890s, prospectors began mining for gold without permission on Blackfeet spiritual land to the east in the Sweet Pine Hills.* (Randall: Undeniable)

As this story continues, it depicts a turbulent past with ongoing conflicts, disagreements, violence and "oppression" (Randall: Undeniable). Rather than ensuring respect for the people, it describes how social justice and the protection of indigenous people were endangered:

> *During the depths of culture loss in the 1950s and '60s, after Blackfeet children were forced from their families and sent to boarding schools […], the federal government outlawed tribal ceremonies and tried to stop the Blackfeet from speaking their language. (*Randall: *Undeniable)*

By describing how families were torn apart, how indigenous rituals were forbidden, and how cultural roots were destroyed, the past is depicted as a fragile state in which the protection of indigenous people's rights could not be relied upon. Here, the author highlights how these historical events threatened the lives and cultures of these people, forcing them to fight for their "cultural survival" (Randall: Undeniable). Thus, she emphasizes the lack of social justice and protection by highlighting how vulnerability and fragility characterized the past.

Giving up to a vision of the future: As a consequence of these juxtaposed visions of idealized and destructed presents and the retracing of vulnerable pasts, again a vision of the future is developed. However, unlike the previous two processes, a lack of imaginaries of sustainability impedes the emergence of visions of desirable futures. Instead, Patagonia creates visions of destructed futures:

Destructed futures: In contrast to the prior developed visions of desirable futures, this vision of destructed futures depicts a world in which environmental destruction and social injustice prevail. For example, in the story The Real Hidden Gems of the West Coast, the author outlines an ongoing conflict between mining corporations, local communities and surfers on a coastline in South Africa. Although the area is a "biodiversity hotspot with a rich Indigenous past", it became a "battleground between Cape Town's citizens and Big Mining backed by the government" (Masterson: The Real Hidden Gems of the West Coast). As these mining

companies expand their activities along the coastline, it gets more difficult for locals and surfers to access the beaches:

> *[…] the mining companies seem to be ignoring Indigenous land rights along with the public's constitutional right to access the coast. Many of the areas currently being mined or prospected feature world-class surf spots frequented by local South African surfers and the international surfing elite. If the mines expand, these spots will be widely shut down and heavily guarded against surfers, anglers and the general public.* (Masterson: The Real Hidden Gems of the West Coast)

As the author highlights, an expansion of the mines will lead to further exploitation and expulsion of the communities. It will cause the inaccessibility of these areas in the future, impeding a "constitutional right" to enjoy these places. Hence, the author depicts a future that is characterized by destruction, allowing him to wonder: "Where will it end?" (Masterson: The Real Hidden Gems of the West Coast). Yet the mining activities are not only described as harming the surfing community but also as damaging to local fishermen who rely on the accessibility of the shore:

> *Artisanal fishers also worry encroaching mines will try to enforce the heavy-handed restrictions they have gotten away with for years farther north. 'This is something that would have dangerous consequences for the livelihoods and food security of fishing communities,' said Carmen Mannarino, a program manager for Masifundise, a regional initiative that assists small-scale anglers.* (Masterson: The Real Hidden Gems of the West Coast)

Here, the extension of mining activities along the coastline would have "dangerous consequences for the livelihoods and food security of fishing communities", who are defenseless against the big corporations. By describing these devastating consequences of ongoing destruction, the author depicts a future that threatens the existence of these local communities. It is thus described as a destructed state, where big companies win, whilst local people who produce on a small scale lose out. As no real solution has yet been found, this creates a sense of powerlessness, with people having to surrender to the rampant destruction of the coastline.

Interestingly, this vision of destructed futures emerges in the clear absence of imaginaries of sustainability. Despite the fact that the causes of this unsustainable development are described in this story, no suggestions for how it might be overcome are provided. The author anticipates that the mining corporations will extend their activities in the coastal area in the future, thereby continuing to destroy the surfers' beaches and the livelihoods of local fishermen:

> *Away from the public eye, miners use giant machines to tear at the beaches and transport truckloads of sand to processing plants where the grains are then separated from the minerals. For the beaches, the level of carnage is akin to a battle zone; the coastal terrain*

is often irrevocably reduced to sterile piles of sand and gashes. (Masterson: The Real Hidden Gems of the West Coast)

As these activities unfold "away from the public eye", they are hidden from public awareness and political debate. Rather than representing a flourishing nature and the protection of biodiversity, these beaches are "irrevocably reduced to sterile piles of sand and gashes". The author explains these developments, recognizing that "mineral rights become higher than public rights" (Masterson: The Real Hidden Gems of the West Coast), allowing the wrecked present to proceed without interruption into a destructed future.

Process model: Creating desirable futures through normative visions of past and present

The identification of these three processes leads to the development of a process model, explaining how Patagonia creates normative imaginations of (un)desirable futures through normative visions of past and present. It is represented in Figure 1.

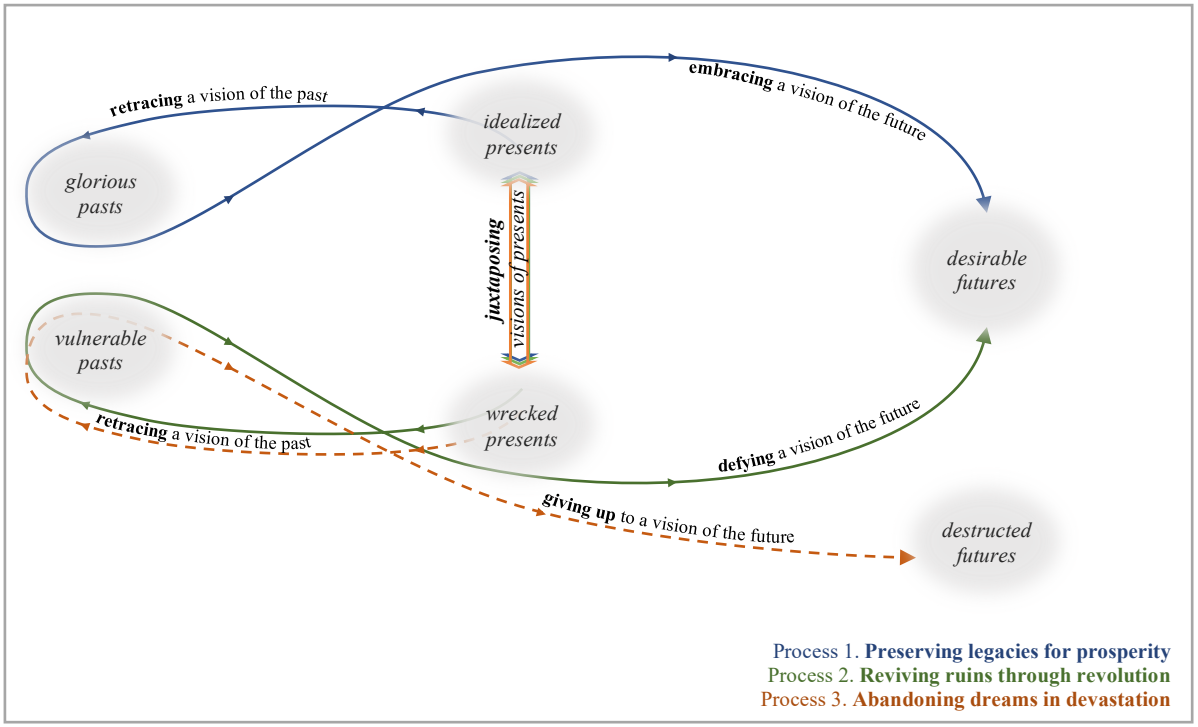

Figure 1. Process model: Creating desirable futures through normative visions of past and present

The first process, 'preserving legacies for prosperity', describes how Patagonia preserved the normative underpinnings of glorious pasts in order to embrace desirable futures. This process unfolded through the juxtaposition of idealized and wrecked presents, representing two differing perspectives on how the present could be perceived. Then, by retracing a vision of glorious pasts, Patagonia foregrounds the desirability of the previously introduced visions of

idealized presents. By embracing the normative underpinnings of these visions of idealized presents and glorious pasts, Patagonia is then able to create visions of desirable futures.

The second process, 'reviving ruins through revolution', unfolds in a similar vein, but now defies visions of vulnerable pasts in order to create desirable futures. Again, Patagonia juxtaposes visions of idealized presents with visions of wrecked presents. Then, however, it retraces a vision of vulnerable pasts, foregrounding the underlying normativity of wrecked presents. By defying the normative underpinnings of these visions of wrecked presents and vulnerable pasts, Patagonia is then able to envision desirable futures.

In the third process, Patagonia now surrenders to the undesirable normative underpinnings. Here again, two visions of idealized and wrecked presents are juxtaposed. Then, by retracing a vision of vulnerable pasts, the underlying normativity of the wrecked present is foregrounded. However, as Patagonia fails to embrace or defy the underlying normativity of these visions, it gives up to their undesirability, thereby creating visions of destructed futures.

Discussion

This paper seeks to answer the question of how organizations create normative imaginations of (un)desirable futures. It illustrates how organizations create normative visions not only of the future but also of past and present. By enacting certain paths that link these visions, visions of (un)desirable futures are created. These findings allow me to make two contributions. First, I extend research on future-making and desirable futures by introducing the notion of *normative temporalization*, i.e., the process of evaluating visions of the future by juxtaposing normative visions of past and present. Within the process of normative temporalization, organizations transform their visions of past, present, and future into normative realms of imagination. Juxtaposing these visions enables the organization to delineate their normative underpinnings, and thus also to develop a normative judgement as to whether these visions count as desirable or not. Second, I contribute to literature on imaginaries. Here, my findings allow for an explanation of how specific imaginaries of sustainability enable organizations to make desirable futures actionable. By creating imaginaries of sustainability, organizations develop a vision of how desirable futures might look and how these futures can eventually be reached. Depending on the inherent qualities of these imaginaries, their visions of the future derive from either embracing values from past and present or from defying these values. In the following section, I discuss these two contributions in more detail.

Normative Temporalization: Juxtaposing Visions of Time to Create Desirable Futures

Prior research suggests that organizing for sustainability unfolds through the purposeful enactment of the present to ensure sustainable futures (Bansal, 2019; Bansal & DesJardine, 2014; Slawinski & Bansal, 2015). It considers sustainable actions in the present as the foundation of long-lasting impact and better futures (Kim et al., 2019), however without challenging their normative underpinnings. As potentially desirable futures, they represent 'what-if' futures (Gümüsay & Reinecke, 2022, p. 240) that yet require normative guidance and evaluation. Research on future-making (Thompson & Byrne, 2022; Wenzel, 2022) hereby provides helpful explanations how these futures are created and enacted in the present through imaginations and imaginaries yet still fail to explain how these imaginations gain a normative dimension. However, particularly in the context of sustainability, organizations are challenged to unravel these normative dimensions and to evaluate what count as potentially desirable futures (Gümüsay & Reinecke, 2022). As imagining the future entails a fundamental "uncertainty about the appropriateness of organizational activities to be performed in the present" (Wenzel et al., 2020, p. 1450), organizing for sustainability requires future-making practices that address and embrace these normative underpinnings.

My findings contribute to this puzzle by providing a more nuanced understanding of the underlying processes. As I have shown in my data, organizations create desirable futures by not only envisioning the future but also past and present. These visions depict normative realms and evaluations, reflecting a particular interpretation of past, present, and future. As these visions are characterized by certain normative underpinnings, the organization compares and contrasts these visions with each other by juxtaposing opposing visions of the present and retracing a supportive vision of the past. In doing so, the organization foregrounds one of the two opposing normative underpinnings, allowing for their evaluation as either desirable or not. As a consequence, the organization is then able to either preserve or reject their normative underpinnings, thereby creating desirable futures through either embracing or defying these visions. Hence, by engaging in this process, the organization creates a shared understanding of what might count as desirable or not, thereby developing visions of (un)desirable futures. I call this process *normative temporalization*, i.e., the process of evaluating visions of the future by juxtaposing normative visions of past and present. This process entails the transformation of past, present, and future into normative realms of imagination, allowing organizations to depart from the commonly neutral perspective on time in order to evaluate whether a certain vision counts as desirable or not.

This notion of *normative temporalization* extends our current understanding of future-making (Comi & Whyte, 2018; Pettit, Balogun, & Bennett, 2023; Thompson & Byrne, 2022; Wenzel, 2022) for desirable futures (Alimadadi, Davies, & Tell, 2022; Gümüsay & Reinecke, 2022). It allows us to answer the question of how imagined futures are evaluated as (un)desirable and how organizations create this (un)desirability in the first place. Rather than elucidating how organizations create imaginaries to envision the future, normative temporalization shifts the focus towards the underlying processes that contribute to the emergence of *desirable* futures. Hence, my findings highlight that the normative underpinnings of desirable futures only arise in juxtaposition to visions of (un)desirable pasts and presents. Essential to this process is the retracing of values from the past that either support or oppose visions of the present. With the aspirations, ideals and values that are connected to these visions of past, present, and future, the organization is thus able to "emphasize the *desirability* of the version of the world presented" (Rindova & Martins, 2022, p. 213; emphasize in original). My findings expand on these insights by further elucidating *how* these normative visions are then projected onto the future. Normative temporalization enables organizations to connect the future-making practices that rely on imagining alternative futures to the values and normative underpinnings of their envisioned pasts and presents. This idea is closely related to what is already known about the inherent temporality of narratives (Ricoeur, 1984; Rindova & Martins, 2022) and imaginaries (Augustine et al., 2019; Bell, Dacin, & Toraldo, 2021) as stretching through time whilst maintaining a normative foundation for the future. As these are constructed in the present, they inevitably link to past and future, thereby (re-)producing and (re-)enacting time as they are being created (Hernes & Obstfeld, 2022). Hence, the process of normative temporalization allows organizations to evaluate normative imaginations of the future as (un)desirable in reflection of the normative underpinnings of past and present.

Imaginaries of Sustainability: Making Desirable Futures Actionable

Whilst normative temporalization allows us to understand how desirable futures are evaluated, the second part of the contribution sheds further light on how these desirable futures then become actionable. Here, research has already pointed to the role of imaginaries as an empowering force, allowing organizations to transform the ambiguous and hypothetical nature of distant futures into futures with a "closer association with experiential reality" (Augustine et al., 2019, p. 1935). In their study of geoengineering, Augustine et al. (2019) develop the notion of distant futures as 'as-if' realities to describe how these distant futures incorporate social consequences, thereby inspiring collective action. They develop the idea that these 'as-if'

realities derive from a dialectic process between different imaginaries, thereby transforming a previous imagined fantasy into a serious future problem that inspires action (Augustine et al., 2019, pp. 1935-1936). Whilst this perspective points to the transformation of the future itself to make it actionable, my findings suggest that the particular qualities of the imaginaries inspired the actionability of these futures. Throughout my analysis, it became clear that each of these imaginaries of sustainability unfolded with particular immanent qualities that reflected differently on the envisioned pasts and presents. Here, the imaginaries of the first path (i.e., sustainability as spirituality, sustainability as circularity, and sustainability as regionalism) embraced the values of the desired present and past in order to create visions of desirable futures. Within this process, these imaginaries supported the normative underpinnings of the foregrounded visions of idealized presents and glorious pasts, and thus were able to translate them into the future. In contrast, the imaginaries of the second path (i.e., sustainability as governance and sustainability as activism) opposed the depicted normative underpinnings of the foregrounded vulnerable pasts and wrecked presents. These imaginaries encouraged the opposition of their normative underpinnings and thus defied the underlying values of these visions, thereby empowering the organization to create visions of desirable futures.

Therefore, although these different imaginaries of sustainability do not change how the future is envisioned (i.e., as desirable), their immanent characteristics change the processes that allow the organization to create these visions of desirable futures. Whilst the first set of imaginaries focus on embracing the underlying normativity of past and present, the second set of imaginaries emphasize their defiance. Hence, even though these imaginaries project onto desirable futures, creating visions of these futures through imaginaries of sustainability allows the organization to embrace or oppose the underlying norms from past and present. In consequence, these imaginaries of sustainability make desirable futures actionable, as they allow visions of desirability to be reflected in the norms of past and present.

These insights have several implications for organizations. Whilst the underlying temporal foundations of organizing for sustainability consider time to be rather a neutral sphere (Bansal & DesJardine, 2014; Kim et al., 2019; Wenzel et al., 2020), my findings suggest that engaging in future-making practices and imagining sustainable futures requires reflection on the related visions of past and present. Depending on whether these reflections foreground visions of idealized or wrecked presents and glorious or vulnerable pasts, different types of imaginaries are needed to be able to create meaningful visions of desirable futures. As my findings have shown, this is an essential step, as a lack of imaginaries has led to the creation of destructed

futures. Hence, integrating the immanent characteristics of imaginaries of sustainability is an integral part of organizing for sustainability.

Conclusion

In this paper, I have explored how organizations create normative imaginations of (un)desirable futures. By analyzing how organizations envision past, present, and future through imaginaries of sustainability, and how these visions are interrelated through processes of future-making, this paper makes two main contributions. First, I introduce the notion of normative temporalization, i.e., the process of evaluating visions of the future by juxtaposing normative visions of past and present. Transforming past, present, and future into normative realms of imagination enables the organization to develop a normative judgement, and the ability to decide which vision counts as desirable or not. Second, I contribute to the literature on imaginaries, specifically on how these enable organizations to make desirable futures actionable. Here, I show how imaginaries have different inherent qualities which affect how the organization engages with their visions of past, present, and future. Whilst some imaginaries of sustainability build on the preservation of values from past and present by embracing them, other imaginaries empower their defiance.

Of course, such a study is not without limitations. As the paper focuses on the stories provided on Patagonia's blog, it lacks insights into the concrete organizational actions. Although the blogposts allow us an extended understanding of how Patagonia envisions desirable futures, we are unable to understand how these futures are practiced in the organization. In the case of desirable futures and the question of how these are enacted in the organization, further research is needed. I would highlight in particular the question of how specific imaginaries of sustainability are incorporated in the organization's practices and how they enable actors to actively engage in creating desirable futures as an interesting starting point for future research.

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Appendix: Table 1. Typology of Imaginaries

Dimension	**Moral Basis**			**Cosmology**		**Temporal Vision of Sustainability**		
Components	**Ethos**	**Values**	**Evaluation Criteria**	**Privileged Epistemic Domains**	**Authoritative Actors**	**Temporal Roots**	**Temporal Purpose**	**Temporal Linkages**
sustainability as spirituality living in harmony with nature allows to create a deep connection with nature and environment, and thus enables actors to make better choices to facilitate sustainability	sustainability through a deep connection between humans and nature	spirituality, harmony, and respect for nature	respecting nature and minorities; recognizing the limits of resources	spirituality, transparency, respect	indigenous people, spiritual leaders	remembering *past* ways of living in harmony with nature	preserving the past for the future	reflecting on sustainable pasts allows to transfer their values into the future
sustainability as regionalism appreciating one's surroundings both by findings adventures in the backyard as well as sourcing from what the local environment provides, fosters sustainability	sustainability through cherishing one's homelands and the natural resources available in close distance	closeness, regionalism	acknowledging local resources without extracting more than needed	localization, collaboration	local communities and producers	recognizing resources available in the *present*	embracing the present for the future	nourishing sustainable presents allows to preserve these resources for the future
sustainability as circularity creating closed loop systems allows to reduce the impact of products and people's actions, and therefore to enhance sustainability	sustainability through closing the loop of products and processes	less-/no-waste & repair, reuse, recycle	minimizing or better preventing traces of products or actions on earth	closed-loop systems	"everyone with a sewing machine"	rehabilitating resources *from the past in the present*	reviving the past in the present for the future	circulating between sustainable pasts and presents allows to relay these resources into the future
sustainability as activism fighting for the sustainable cause through community engagement, grassroot activists and initiatives enables to support ecological and social justice	sustainability through every person's power	community spirit, equality, and social justice	fighting for the protection of natural resources and the rights of minorities	social justice, empower-ment	(grassroot) activists and initiatives	fighting *past and present* wrongdoings	tackling past and present for the future	empowering alternative sustainable presents allows to strengthen these in the future
sustainability as governance protecting the rights of nature and the most vulnerable people through effective and fair governance enables social and ecological justice and therefore to advance sustainability	sustainability through fair and just political decision-making in the favor of nature and minorities	nature and people over profit	advocating for system change and the protection of nature and people	common goods, good governance	politicians, decision-makers	advocating for sustainable decisions in the *present*	empowering the present for the future	campaigning for sustainable decisions in the present allows to pave the way for sustainable decisions in the future

Appendix

A1 Summary of Dissertation

In a world characterized by an increasing pace of social life and an acceleration and intensification of crises and emergencies, organizations continuously face the challenge of having to cope with these temporal demands. Organizations have to interact with the uncertain and dynamic developments in crises to ensure robust and smoothly coordinated actions. Also, to achieve the goal of sustainability, they have to embrace uncertain futures in their present actions. To shed further light on these theoretical and practical challenges, research has increasingly begun to consider and question the underlying and immanent temporalities of these organizational problems. Time is hereby understood as enacted through social practices, allowing organizations to purposefully shape and change their temporal structures as well as their interpretation of past and future. However, there are still various gaps, particularly in explaining how organizations can address the temporalities of organizational phenomena such as long-lasting crises and sustainability. Therefore, this cumulative dissertation takes up on these new developments in three articles, aiming to explore how process philosophy reshapes our understanding of time in process organization studies (Article I), how organizations coordinate multiple routines in long-lasting crises (Article II), and how organizations construct visions of desirable, sustainable futures (Article III). By answering these research questions, this dissertation focuses on the onto-epistemological foundations of time in process organization studies (Article I). It questions how routine clusters are coordinated in response to a long-lasting crisis and how routine participants hereby act as 'masters of their time' to flexibly respond to the particular temporal demands of this situation (Article II). Finally, it examines how organizations create visions of desirable futures through imaginaries of sustainability, allowing them to deliberately shape the normative underpinnings of these futures (Article III). Overall, the dissertation contributes to literature on time and temporality in management and organization research in three ways. First, it adds to the discourse around temporal agency by highlighting the relevance of examining the underlying temporality of agency and how this allows actors to shape the temporality of actions and processes. Second, the dissertation contributes to research on temporal complexity. By elucidating the multiple temporalities prevalent in organizational realities, it also emphasizes the importance for organizations and organizational actors to embrace these temporally complex settings. Third, it provides insights into the normative underpinnings of time. While time is often perceived as a neutral realm, this dissertation highlights how organizations actively shape and determine how past, present, and future are envisioned and, therefore, can shape and determine how these become (un)desirable.

A2 Zusammenfassung der Dissertation

In einer Welt, die durch ein zunehmendes soziales Tempo sowie eine Vervielfältigung und Intensivierung von Krisen geprägt ist, stehen Organisationen kontinuierlich vor der Herausforderung, sich diesen vielfältigen zeitlichen Anforderungen zu stellen. Dabei wird von ihnen erwartet mit den Unsicherheiten und dynamischen Entwicklungen in Krisen zu interagieren, um eine robuste und reibungslos Koordination ihrer Aktivitäten sicherzustellen. Auch um das Ziel der Nachhaltigkeit zu erreichen, müssen sie unsichere Zukunftsszenarien in ihren gegenwärtigen Handlungen berücksichtigen. Um die zugrunde liegenden zeitlichen Charakteristika dieser organisatorischen Herausforderungen vollständig zu verstehen, beschäftigt sich die Forschung zunehmenden mit dem Einfluss von Zeit und Zeitlichkeit auf organisationale Praktiken. Zeit wird hierbei als ein Phänomen verstanden, welches durch soziale Praktiken ausgehandelt wird, so dass Organisationen ihre zeitlichen Strukturen sowie auch ihre Vergangenheit und Zukunft gezielt gestalten und verändern können. Trotz einer Vielfalt aktueller Forschung bleiben hierbei Lücken bestehen, insbesondere bei der Frage, wie Organisationen mit der Zeitlichkeit und den damit verbundenen Herausforderungen organisationaler Phänomene, wie beispielsweise langanhaltende Krisen und Nachhaltigkeit, umgehen können. Die vorliegende kumulative Dissertation greift diese Entwicklungen in drei Artikeln gezielt auf. Sie untersucht wie die Prozessphilosophie unser Verständnis von Zeitlichkeit in Organisationen verändert (Artikel I), wie Organisationen multiple Routinen in langanhaltenden Krisen koordinieren (Artikel II) und wie Organisationen Visionen von nachhaltigen und wünschenswerten Zukünften entwerfen (Artikel III). In der Beantwortung dieser Forschungsfragen konzentriert sich die Dissertation auf die onto-epistemologischen Grundlagen von Zeit in der organisationalen Prozessforschung und erweitert durch die Einführung der Idee einer zeitlichen Intensität die aktuelle, theoretische Debatte (Artikel I). Durch ihren Beitrag zur Koordination multipler Routinen in langanhaltenden Krisen zeigt sie, wie Routine-Teilnehmer als ‚Agenten ihrer Zeit' handeln und so flexibel auf die besonderen zeitlichen Anforderungen der Situation reagieren können (Artikel II). Außerdem untersucht sie, wie Organisationen durch Vorstellungen von Nachhaltigkeit Visionen wünschenswerter Zukünfte erschaffen, die es ihnen ermöglichen, die normativen Grundlagen dieser Zukünfte bewusst zu gestalten (Artikel III). Insgesamt trägt die Dissertation auf drei Arten zur Literatur über Zeit und Zeitlichkeit in der Management- und Organisationsforschung bei. Zunächst erweitert sie den Diskurs über zeitliche Handlungsfähigkeit, indem sie die Relevanz der zugrundeliegenden Zeitlichkeit von Handlungen hervorhebt. Da sich die Handlungsfähigkeit

im Dreiklang aus Vergangenheit, Gegenwart und Zukunft erstreckt, sind auch Akteure in der Lage, diese Zeitlichkeiten durch ihre Handlungen zu gestalten. Des Weiteren trägt die Dissertation zur Forschung über zeitliche Komplexität bei. Durch die Vielfältigkeit an Zeitlichkeiten, die die organisationalen Realitäten prägen, besteht auch für Organisationen und ihre Akteure der Bedarf, sich mit dieser Vielfalt auseinanderzusetzen und diese aktiv zu gestalten. Nur so können Organisationen in zeitlich komplexen Umgebungen agieren. Letztlich liefert die Dissertation Einblicke in die normativen Grundlagen von Zeit. Während Zeit oft als neutrales Phänomen wahrgenommen wird, hebt die Dissertation hervor, wie Organisationen aktiv die zugrundeliegende Normativität von Vergangenheit, Gegenwart und Zukunft gestalten und so bestimmen können, was als (un-)erwünschte Vergangenheit, Gegenwart oder Zukunft gilt.