

The Challenges of Implementing Temporal Shifts in Temporary Organizations: Implications of a Situated Temporal View

Vaagaasar, Anne Live¹; Hernes, Tor Øystein^{2,3}; Dille, Therese³

¹BI Norwegian Business School, Norway

²Copenhagen Business School, Frederiksberg, Denmark

³University of South- Eastern Norway, Norway

Anne Live Vaagaasar, Tor Hernes, Therese Dille, The Challenges of Implementing Temporal Shifts in Temporary Organizations: Implications of a Situated Temporal View, Project Management Journal (Volume 51, issue 4) pp. 420-428. Copyright © 2020 (Project Management Institute, Inc.). DOI: <https://doi.org/10.1177%2F8756972820931276>.

Vaagaasar, A. L., Hernes, T., & Dille, T. (2020). The Challenges of Implementing Temporal Shifts in Temporary Organizations: Implications of a Situated Temporal View. *Project Management Journal*, 51(4), 420-428. <https://doi.org/10.1177/8756972820931276>

The Challenges of Implementing Temporal Shifts in Temporary Organizations: Implications of a Situated Temporal View

Abstract

We apply a situated temporal view to reveal the acute challenge actors face in making changes when their project moves toward its final deadline. A situated temporal view takes account not just of the dwindling time left to change the future but also the lingering past, the combination of which poses particular challenges to organizers. We discuss aspects of temporary organizing that make such temporal shifts challenging: the complex interplay between temporal structures and practices, multiple temporal orientations, and deferred timing of temporal shifts. We suggest ideas for further research to apply a situated temporal view to temporary organizing.

Keywords

Temporary organization, project, time frame, shifts, situated temporality

Introduction

Temporary organizations, and projects in particular, share a common feature of having a limited, predefined time frame (Lundin & Söderholm, 1995). The idea of time frame stipulates the beginning and end (Halbesleben et al., 2003) of these organizations' existence, in which a final deadline often defines the ending. The fact of having a deadline influences how actors organize to produce the temporary organization's expected outputs (Janicik & Bartel, 2003; Jones & Lichtenstein, 2008; Lindkvist et al., 1998). In this essay, we discuss how the time-space compression created by temporary organizing poses particular challenges for organizers when they need to make changes during execution.

We suggest a situated temporal view of temporary organizations. A situated temporal view, as Hernes and Schultz (2020) suggest, attends to what Engwall (2003, p. 790) calls the "inner life" of the temporary organization. A situated temporal view applied to temporary organizations follows actors *in time* as they move from the beginning to the end of a project. The situated temporal view reflects the views of Bakker et al. (2016) and implies following actors being in time as a project moves from beginning to end. Lundin and Söderholm (1995, p. 439) describe this very well as actors finding that "time is always running out" as the end approaches. Actors in the temporal flow of a lingering past and an ever-shortening future is an understudied phenomenon in the temporary organization literature (Jones & Lichtenstein, 2008). The situated temporal view invites analysis of how actors' changing temporal orientations influence their emerging action patterns and the possibilities for making changes as deadlines approach. This view addresses the temporal structures, specifically the rhythm of action patterns that actors use to regulate activities. Consequently, a situated temporal view addresses both the effects of these structures on actors' practices and how these effects can change as actors move toward a deadline.

Although multiple types of change exist in temporary organizations, temporal shifts (Staudenmayer et al., 2002) are particularly important to study further not least because their timing is crucial for temporary organizations with predefined deadlines. Temporal shifts signify changes in temporal structures that can alter entrenched organizational rhythms. Because such changes occur in the flow of time and because actors in temporary organizations are forced to deliver by predefined deadlines, a temporal view is needed that accounts for how actors cope with the changing past and future as they move toward the deadline. Of particular interest is how actors in the present act on the changing relationship between the accumulated past and the remaining future. Our underlying assumption is that for changes to occur, actors must make them as concerted measures in the present.

Next, we briefly describe scholars' developing understanding of temporal issues in the field of project management and temporary organizing. Then, we introduce the situated temporal view and discuss its relationship with temporal structuring and temporal shifts in temporary organizations. Last, we review three aspects of temporary organizing that make temporal shifts challenging to those who manage such organizations: the complex interplay between temporal structures and practices, multiple temporal orientations, and deferred timing of temporal shifts.

Temporal Views in the Literature on Temporary Organizations

The mainstream literature on temporary organizations has tended to consider time as linear, homogenous, and controllable (Remington & Söderholm, 2010). In such a view, a project would “proceed like a train moving at high speed towards the end station without any unwanted stops” (Lundin & Söderholm, 1995, p. 448). Planning could then be considered a key mechanism to move the temporary organization “towards the formerly analyzed future” (Noss, 2002, p. 48), and sequential plans would be expected to impose control over time (Morris, 2010). Consequently, the role of project managers could be understood in terms of being an

organizational metronome, that is, “a time-keeping mechanism which is designed to keep a number of diverse elements responsive to a central ‘beat’ or common rhythm” (Sayles & Chandler, 1971, p. 207).

Over the past decade, we have seen increasing interest in understanding how time, transience, and temporality affect temporary organizing (see, e.g., Bakker 2010; Bakker et al., 2016; Burke & Morley, 2016; Dille & Söderlund, 2011; Dille et al., 2018; Janowicz-Panjaitan et al., 2009; Jones & Lichtenstein, 2008; Stjerne & Svejenova, 2016; Stjerne et al., 2019; Sydow et al., 2004; Tyssen et al., 2014). These contributions are important for exploring the temporal aspects of temporary organizing, but as Bakker et al. (2016, p. 1707) note, scholars studying temporal aspects of temporary organizing have “made almost exclusive use of moderate process perspectives such as structuration or other types of practice-based theory.” The authors suggest that one could advance understanding of temporal aspects of temporary organizations by taking stronger process views that build on process philosophies of time, such as the becoming perspective, represented by, for example, Tsoukas and Chia (2002) and Hernes (2014).

Temporary organizations offer particularly fertile ground for studying temporal views by virtue of two factors: multiple temporal orientations and predefined beginnings and ends. First, the time horizons of predetermined time frames shape the organizing and project dynamics (Bakker et al., 2013; Lindkvist et al., 1998). In addition, some time horizons are extended to include both past and future projects (Engwall, 2003), as studies by Bakker et al. (2016), Engwall (2003), and Stjerne and Svejenova (2016) demonstrate. These researchers discuss how experience from previous projects influences not just people’s actions in ongoing projects (Engwall, 2003; Stjerne & Svejenova, 2016) but also their actions regarding expectations of working in future projects (Bakker et al., 2016; Engwall, 2003; Swärd, 2016).

Second, because temporary organizations have predefined beginnings and ends (Lundin & Söderholm, 1995), actors operate within closed time horizons (Stjerne & Svejenova, 2016).

As they move toward the deadline, they simultaneously experience lengthening of time spent on the project and a corresponding shortening of time remaining to make changes before the deadline. It is the very gnawing of the time spent on the project into the time left to make changes that makes temporal shifts so crucial and also challenging. Bergson (1922, p. 5), the eminent philosopher of time, formulated this as: “Duration is the continuous progress of the past which gnaws into the future and which swells as it advances.” The phenomenon of the past gnawing into the future is not entirely new to scholars of temporary organizations. Geraldi et al. (2010) note, for example, that when actors spent too much time justifying the status quo in projects, they had less time to put the project back on track in the face of unexpected events. Similarly, Geraldi and Adlbrecht (2007, p. 35) point out that time is a relevant constraint in projects, stating, “There is not enough time to create and test many possibilities, and the longer it takes to make decisions, the higher the probability of missing the opportunity behind the decision.” Thus, we face the challenge of developing theory on time in temporary organizations that takes explicitly into consideration the dynamics causing the need for change, which accumulate over time, and the corresponding shortening of time to solve the problems that have accumulated (Gersick, 1989). The special issue of *Project Management Journal*[®], *Process Studies of Project Organizing*, published at the beginning of 2020, underlines this emphasis on the temporality of temporary organizations. The guest editors of this issue, Sergi, Crevani, and Abury (2020), urge scholars of project management to study qualities that unfold in time as people in the process experience them. Such a view requires that rather than perceiving time as a mere background of clock-time against which actions are measured (Bluedorn, 2002), one emphasizes the passage of time in temporary organizing. This is what the situated temporal view allows us to do. It considers time a prime force in temporary organizing and offers a way to account for its passage as actors move toward the temporary organization’s end.

A Situated Temporal View

Scholars have developed and applied a growing volume of temporal analysis in research areas such as sensemaking (Gephart et al., 2010; Wiebe, 2010), narratives (Cunliffe et al., 2004), identity (Schultz & Hernes, 2013), institutions (Rowell et al., 2017), organizations and environment (Slawinski & Bansal, 2012), change (Hernes & Pulk, 2019; Hussenot & Missonier, 2016; Reinecke & Ansari, 2015), history (Hatch & Schultz, 2017; Suddaby et al., 2010), and strategy (Kaplan & Orlikowski, 2013; Schultz & Hernes, 2019). Works such as these have helped to shift the research focus from a time view to a temporal view of organizations. Scholars have distinguished views of temporality from time by focusing more on actors' subjective experiences of being in the flow of time (Hernes et al., 2020). Temporality scholarship has called for a situated view of time, well known from studies of practices in organizations. Situated views emerged in social science studies as ways to understand how activities are not just actions performed, but also structure the worlds of actors (Bourdieu, 1977). Orlikowski and Yates (1998) refer to this as the "embodied, embedded and material aspects of human agency in constituting particular social orders" (p. 685). For instance, studies by Hutchins (1995) and Suchman (1987) have demonstrated how actors' practices connected iteratively to structure interaction and make it meaningful to actors. Situated views have helped to bridge the gap between agency and structure, and focus on the structuring features of social practices.

Orlikowski and Yates (2002) developed situated views by theorizing how practices sustain and modify temporal structures, in other words, the organizational rhythms set by clocks or events. They argue that temporal structures, such as the pace and rhythm of activities, frame practices while being reflexively produced and reproduced by those same practices. However, they point out that temporal structures may not successfully shape practices among actors, who may choose alternative temporal structures rather than the formalized ones. In other words, temporal structures sometimes fail to determine actors' practices, just as practices fail to enact

temporal structures. Whereas one might expect that in temporary organizations, actors adhere to a change in temporal structure as they move toward a deadline, studies show that actors sometimes do not adhere to shifts in temporal structures, which becomes particularly acute in temporary organizations. Lifshitz Assaf et al.'s (2018) study of makeathons, which are temporary organizations with extreme temporal conditions, found that when participants faced high levels of ambiguity, they resorted to “breaking” with ongoing temporal structures. In their case, participants spontaneously created new temporal structures for the remainder of the project duration. Extending the notion of reflexive dynamics between practices and temporal structures discussed by Orlikowski and Yates (1998), Hernes and Schultz (2020) argue that while practices may uphold temporal structures, actors may also look beyond those structures to address more distant events. By doing this, they may be able to question and transform the temporal structures that frame their activity. Hernes and Schultz call this a situated temporal view, which helps explain how actors in the present reinterpret the more distant past while anticipating the more distant future (Hernes, 2014). Such a view implies following actors as they move through time and helps in understanding the dynamics of temporal shifts in situations of the accumulated past gnawing into a dwindling future.

A situated temporal view contributes to the literature on temporary organizations in at least two ways. First, this view focuses on the effects of actors' strong sense of the passage of time (Hernes, 2014) by aligning the view with the idea of temporal flow in projects (Jones & Lichtenstein, 2008) in terms of actors experiencing a lingering past combined with a dwindling future. Temporal views of permanent organizations do not reflect this situation given that change processes may occur over longer and more open-ended time spans. In temporary organizations, however, the timing and duration of change are vital. This is particularly important in projects, in which actors often perceive the passage of time as rapid (van Berkel et al., 2016), with a quickly diminishing future (Gersick, 1989) with a non-negotiable deadline.

Second, a situated temporal view focuses on how actors in the present reinterpret the past and anticipate the changing future (Hernes, 2014; Kaplan & Orlikowski, 2013; Schultz & Hernes, 2013). When applied to temporary organizations, this view invites reflection on the past and future that actors address and that affects how they act in the present (Bakker & Janowicz-Panjaitan, 2009). We discuss below how actors may address the past or future differently as part of how they implement temporal shifts; we also discuss how, under certain conditions, actors may resort to temporal decoupling (Dille, Hernes, & Vaagaasar, 2019) to maintain past structures or opt out of collectively negotiated structures for the remainder of the temporary organization.

Adopting Hernes and Schultz's (2020) definition of a situated temporal view as following actors as they move through time, we assume that the ways that actors enact their past or future influence their present, ongoing practices. In other words, *how* actors look into the past or future and *how far* they look become especially important during times of change when the consequences of choices are unknown. As noted, compared to more permanent organizations, the relationship between past and future changes rapidly in temporary organizations. This makes the present, past, and future dynamics particularly critical.

We noted above that most situated views, as conducted by Orlikowski and Yates (1998), assume a reflexive relationship between practices and temporal structures. However, empirical studies (e.g., Schultz & Hernes, 2013) have shown that crises, changes, or uncertainty about the future sometimes trigger a wider search into the past or future. Searches into the past may, for example, include turning to temporal structures used previously, in which case actors consider a more distant past than that marked by the beginning of the temporary organization in which they find themselves at present. For instance, in the case of projects, Engwall (2003, p. 803) observes that, whereas some procedures may be applied for the first time, others may be invoked from the past. Taking a situated temporal view assumes that, in conditions of change

or uncertainty, actors search for events and experiences while they cope with ongoing temporal structures. Hence, the view reveals tensions between continuing to work within existing temporal structures and searching in the past and future for reasons to adhere to temporal structure changes. Again, research shows that actors may reach back and forth within existing temporary organizations, or they may alternatively reach back to experience or events beyond the time horizons of the temporary organization.

The Challenges of Making Temporal Shifts in Temporary Organizations

The conditions under which actors attempt and accomplish change in temporary organizations is an important question. The situated view enables understanding of at least three central aspects that make temporal shifts challenging to those who manage temporary organizations: the complex interplay between temporal structures and practices, multiple temporal orientations, and deferred timing of temporal shifts. These three challenges have emerged from the literature on managing or coping with change in temporary organizations.

Complex Interplay Between Temporal Structures and Practices

Temporal structures, such as milestones and deadlines, are important for managing pace, sequencing activities in advance, and initiating collaboration in temporary organizations. Enacting temporal structures, actors can “perform” time (Ballard & Seibold, 2003), as temporal structures enable them to make sense of, regulate, synchronize, and account for activities (Bakker, 2010). Temporal structures are particularly important for planning and coordinating among the members of temporary organizations (Janicik & Bartel, 2003; Jones & Lichtenstein, 2008), and research has indicated that the choice of temporal structure for coordinating depends on the length of a project’s stipulated time frame. The longer the project lasts, the less the coordination tends to be chronological. Rather, in projects of longer duration, actors often resort to event-based measures such as milestones (Jones & Lichtenstein, 2008).

As temporary organizations by definition have final deadlines, deadlines and milestones have received particular attention in studies of temporary organizing; for example, scholars have argued that deadlines and milestones potentially increase the pace of work and, thus, enable project execution within time frames perceived as relatively short (Eisenhardt & Tabrizi, 1995). Deadlines are important not only for pacing (Eisenhardt & Tabrizi, 2003) and sequencing of activities (Jones & Lichtenstein, 2008) but also for breaking out of current action trajectories, since deadlines can signal when it is time to move on (Gersick, 1989). Scholars have demonstrated that anticipated deadlines shape actors' approaches and interactions, for example in creative projects (Bakker et al., 2013), and can even trigger radical changes to project processes, including altering both a system's specific composition and the rules governing the system (Gersick, 1989). This occurs because deadlines provide "glimpses of light" in which project participants reflect on how they are working (Lindkvist et al., 1998, p. 947). In other words, deadlines can induce actors in projects to reflect and to think holistically. As Lindkvist et al. (1998) point out (in terms used by March & Olsen, 1995), milestones can prompt the logic of consequentiality rather than the logic of appropriateness. In the view of Lindkvist et al. (1998), neither time nor the development paths of project work are a smooth trajectory of incremental adjustments or involve a feeling of gradual progression. Rather, they can mean revolutionary episodes of turnaround, sometimes in the face of unexpected events (Geraldi et al., 2010). An early contribution toward a more processual understanding of project organizing is Engwall and Westling's contribution from 2004, which underlines the importance of including time and evolution to understand the process dynamics of projects. They explain how R&D projects, after having suffered from limited progress in a technology development, can endure moments of sudden change, or what they call "periptery."

By studying temporal patterns such as sequencing, pacing, and duration (Ancona & Chong, 1999; Gersick, 1988, 1989; Orlikowski & Yates, 2002), scholars have shown how such

patterns influence temporary organizations' ability to transform themselves when time is running out. For instance, Bechky and Okhuysen (2011) demonstrated how shared expectations of temporal workflow enabled teams to reorganize in the face of unexpected events. If the attempt is to change temporal structures that actors have practiced before and with which they associate positively (Engwall, 2003), introducing such temporal structures will more likely lead to the desired change, which in turn increases the likelihood of delivering results on time. Conversely, if the change involves a relatively unfamiliar temporal structure or one with which actors associate negatively, they will more likely resort to temporal decoupling (Dille et al., 2019). Temporal decoupling means that they practice alternative temporal structures for the remainder of the project. Dille et al. (2019) showed how temporal decoupling ensued in a multi-stakeholder project when one stakeholder could not comply with the temporal structuring designed for the remainder of the project.

This brief outline indicates scholars' increasing awareness of temporal structures as shapers of temporary organizing. While temporal structures do not determine action, they serve as resources for action, coming alive as actors enact them (Weick 1998). Enactment of structures will vary across the ever-changing present, sometimes due to variations in actors' temporal orientations. To avoid delays, temporary organizations can change practices by changing temporal structures, which in turn can lead to smoother execution and increased pace. The notion of midpoint transitions (Gersick, 1989) is a well-known conceptualization of the relationship between shift in temporal structure and changes in practices, referring to the point at which project team members recognize that if they do not alter their course of action, they will be unable to accomplish expected deliverables by the final deadline.

Multiple Temporal Orientations

Many temporary organizations are formed because they are expected to solve open-ended and complex problems that require both goal orientation and creativity. The staff tend to come from

different backgrounds, represent different stakeholders, or both. This means that unexpected developments may increase, conflicts arise (Engwall, 2003), and delays occur, all of which require change if timely delivery is to be achieved. However, ability to change present actions is highly contingent on previous, simultaneous, and anticipated future courses of action, and studies of project management (Engwall, 2003) have often not fully captured this complexity. A key explanation lies in the nature of establishing temporary organizations, in stipulating a time frame for their beginning and end, a bracketing off of pasts and futures beyond this time frame, which in turn creates strong focus on the present (Bakker & Janowicz-Panjaitan, 2009). This is, as Bakker and Janowicz-Panjaitan (2009) note, a temporalization of the temporariness, not just creating time horizons but also shaping the very experience of moving forward in time (Bakker & Janowicz-Panjaitan, 2009).

However, actors' ability to change practices in response to changes in temporal structures varies with the extent to which they are oriented toward the present, past, or future. Of particular significance is the temporal distances into the past and future they consider (Bluedorn, 2002, p. 114). In this view, actors' temporal orientations in temporary organizations will evolve along with their experience of moving forward in time as they approach the stipulated end, which in turn will influence how they organize to implement the temporal shifts. For example, Axelrod (1981, 1984/2006), using the prisoner's dilemma to understand the circumstances of collaborative behavior, offered early insights on the relationship between the anticipated length of future collaboration and action patterns. Coining the expression "shadow of the future," Axelrod (1984, p. 124) argued that the longer the shadow of the future, the more actors are willing to make changes in how they work together, because they can rely on longer temporal orientations for rewarding or punishing one another.

Tensions arising from members' different temporal orientations often require management to resolve them (Stjerne et al., 2019). One way to address these tensions is to

combine temporal orientations through the way one frames activities, even if it means bringing future tasks into the present or vice versa (Stjerne et al., 2019). When temporalities are incongruent, actors can establish temporal shifts if they recognize that these shifts are both the source of and the solution to the problem (Reinecke & Ansari, 2015). However, their temporal orientation, in particular, the extent to which they are future oriented, shapes their motivation for temporal shifts. Actors who can visualize distant futures tend to display more flexibility in actions, compared to those oriented toward the past (Howard-Grenville, 2005). Temporal studies indicate that actors in projects bring in “shadows” of both the past and future in their temporary organizing. One example is Stjerne and Svejenovas’s (2016) demonstration of how actors use examples of successful collaborations in past projects to trigger funding for future projects. Maniak and Midler’s (2014) conception of multi-project lineage management, which extends the temporal perspective to explain how innovation trajectories emerge in the automobile sector, also exemplifies a more complex approach to temporalities in the context of projects. Taking a situated temporal view enables further exploration of how temporal structures shape temporary organizing, including actors’ ability to make temporal shifts (Gersick, 1988; Lindkvist et al., 1998; Staudenmayer et al., 2002). This view also allows us to explore how actors construct and invoke temporal structures and how these structures evolve along with actors’ experience of moving through time. In sum, this might help future studies further reveal the complexity inherent in implementing desired changes in temporary organizations.

Deferred Timing of Temporal Shifts

As noted above, actors tend to realize the need for change relatively late in the duration of projects, which makes change more difficult, in part because the time spent on the project produces accumulated habits and expectations, routines for how the work is performed (Bygballe et al., 2018; Feldman & Pentland, 2003). Change also becomes difficult because the

time left for changing the accumulated momentum becomes correspondingly shorter. Others have pointed out that actors' perception of a duration produces certain organizational dynamics that affect actors' ability to reorganize work processes (Gersick, 1989), their choice of coordination measures (Jones & Lichtenstein, 2008), or their information-processing strategies in projects (Bakker et al., 2013). Observing project teams, Gersick (1989, p. 304) found that time structuring could produce motivational obstacles to change efforts: "The current evidence suggests that if a milestone passes without the occurrence of enough perceived progress, a team will experience the passing as a failure, and their shared sense of opportunity will probably be lost until the next temporal milestone." Hence, the time structuring that activates the motivational barriers in the first place hinders the motivation needed to alter the very same time structuring; in other words, it is a variant of the bootstrapping problem (Weick & Quinn, 1999). This means that when actors in temporary organizations find themselves in this situation, they will tend to maintain actions and tools they have used up to that point (Dille et al., 2019).

As temporary organizations move from beginning to end, the combination of enduring practices from the past and a corresponding shortening future to change those practices makes the timing of temporal shifts crucial. If we assume that accumulated experience with temporal structuring guides practices, we can anticipate different effects of actors' attempts to change. In this case, actors may be less likely to search their more distant past for experience and may, instead, focus on the recent buildup of events that they see as having led to the problems they currently face. Because the time left for making changes dwindles rapidly, actors may need to negotiate more fundamental changes, such as redefining the output of their collaboration, as Engwall and Westling (2004) suggested. In that case, the future projection of the deadline comes into play. In large multi-stakeholder projects, deadlines are more rigid than in more-loosely defined temporary organizations, making change more crucial. When deadlines are

more fluid, on the other hand, actors may envisage renegotiation of the deadline in order to gain more time to reorient their practices toward the changed temporal structures.

Temporal shifts often involve not just the temporary organization's temporal structures but also those of other stakeholders. Dille et al. (2019) showed how management in a temporary organization attempted to shift the stakeholders' temporal structures by resorting to more instructive use of sequencing late in the process. Sequencing is a means used widely in many kinds of projects (Engwall, 2003). However, attempting to introduce a temporal shift in stakeholders' practices by working within the organization's existing temporal structures may lead to conflict and loss of control over time. The problems accumulated since the project's beginning may be too extensive relative to the time available for actors to make the necessary changes.

The timing of temporal shifts may have critical effects on the dynamics of temporary organizations, especially if actors introduce new temporal structures late in the process and the attempted changes do not correspond to stakeholders' perceptions and experiences of the temporal structures. The relatively rapid pace of temporary organizations, coupled with the standardized repertoire of project management measures, make the timing of temporal shifts challenging, especially in conditions of fixed and non-negotiable deadlines. The repertoire on which a temporary organization relies tends to become limited when time pressure is high and little time remains to make necessary changes, which means that temporal shifts are, by definition, deferred in temporary organizations. In such situations, the temporary organization will more likely resort to existing procedures than changing them. Sydow et al. (2009) suggest a three-stage process through which dependency on accumulated procedure gradually emerges. However, as they note, contextual conditions can support or hinder the unfolding, self-reinforcing processes, but the situational aspects of emerging dependencies on accumulated procedures require further research. The situated view reveals actors' capacity to make temporal

shifts, thereby clarifying temporary organizations' ability, or lack thereof, to change their trajectories.

Conclusion and Further Research

The literature on temporary organizations confirms not only their widespread existence and importance but also their unpredictability and high failure rates. Missing from the current literature is the question of how actors in temporary organizations may effect change as they move from the beginning to the end of projects. As pointed out above, a crucial factor is that the time in which problems develop becomes longer and the time available to solve these problems becomes shorter. Working from a situated temporal view, we can better understand this temporal aspect of temporary organizations through the lens of the project's inner life (Engwall, 2003). We contribute to this work by discussing how the relationship between time spent and time remaining continuously changes, making temporal shifts increasingly challenging as deadlines approach.

Further research might pursue a situated temporal view to investigate the effects of different temporal experiences among actors and how those differences play out, create, settle, or reconcile conflicts during the temporary organization. The situated perspective enables understanding of how actors' temporal orientations change over a project's life cycle and how their temporal orientations affect their ability to change the temporal structuring of activities. It would be of interest to explore this relationship across variable empirical contexts, for example, the relative time frame of the project (relatively short or long), the relative pace of the project (high-low), and how different strategies for project execution (such as sequential versus iterative approach) affect this relationship. We based our discussions of this relationship and the complexities of temporal structures on the perception of an inflexible deadline. It would be interesting to explore this focal relationship in terms of more flexible deadlines. We have brought attention to this aspect, but we have not examined how varying degrees of negotiability

regarding deadlines affect organizing. Consequently, we recommend further research on situations in which actors negotiate temporal challenges, to understand better the nature and impact of different temporal orientations among actors.

We particularly urge future studies to focus on the relationship between change and continuity in temporary organizations. Whereas we have focused on change, a fuller analysis would account for the role of continuity amid change. For example, projects often progress at a different pace and direction than those initially planned (Flyvbjerg, 2011). A widespread response to this situation is to try to bring the project back on track. However, how can project team members evoke a future different from what their present situation indicates? As demonstrated by Dille et al. (2019), when delays accumulate, actors find that they need to depart significantly from the accumulated past (the initial part of the project) while simultaneously ensuring some continuity from that same past. Lastly, what are the effects of different types of temporal structures? In practice, actors often establish time horizons in the beginning of temporary organizations, but time horizons may not be sufficiently compelling to ensure sufficient progress. A worthwhile question involves the effects of introducing stricter temporal structures that deviate significantly from those used at the beginning and the effects of the timing of the change in temporal structures. According to a situated temporal view, the introduction of radically new temporal structures may not work unless actors recognize that there is time to adjust to those new temporal structures.

References

- Ancona, D., & Chong, C. L. (1999). Entrainment: Pace, cycle, and rhythm in organizational behavior. *Research in Organizational Behavior*, 18, 251–284.
- Axelrod, R. (1981). The emergence of cooperation among egoists. *American Political Science Review*, 75(2), 306–318.
- Axelrod, R. (1984/2006). *The evolution of cooperation*. Basic Books.
- Bakker, R. M. (2010). Taking stock of temporary organizational forms: A systematic review and research agenda. *International Journal of Management Reviews*, 12(4), 466–486.
- Bakker, R. M., Boroş, S., Kenis, P., & Oerlemans, L. A. (2013). It's only temporary: Time frame and the dynamics of creative project teams. *British Journal of Management*, 24(3), 383–397.
- Bakker, R. M., DeFillippi, R. J., Schwab, A., & Sydow, J. (2016). Temporary organizing: Promises, processes, problems. *Organization Studies*, 37(12), 1703–1719.
- Bakker, R. M., & Janowicz-Panjaitan, M. (2009). Time matters: The impact of 'temporariness' on the functioning and performance of organizations. In P. Kenis, M. Janowicz-Panjaitan, & B. Cambré (Eds.), *Temporary organizations: Prevalence, logic and effectiveness* (pp. 107–127). Edward Elgar Publishing.
- Ballard, D. I., & Seibold, D. R. (2003). Communicating and organizing in time: A meso-level model of organizational temporality. *Management Communication Quarterly*, 16(3), 380–415.
- Bechky, B. A., & Okhuysen, G. A. (2011). Expecting the unexpected? How SWAT officers and film crews handle surprises. *Academy of Management Journal*, 54(2), 239–261.
- Bergson, H. (1922) (1922) *Creative evolution*. MacMillan.
- Bourdieu, P. (1977). *Outline of a theory of practice* (Vol. 16). Cambridge University Press.
- Bluedorn, A. C. (2002). *The human organization of time: Temporal realities and experience*. Stanford University Press.

- Burke, C. M., & Morley, M. J. (2016). On temporary organizations: A review, synthesis and research agenda. *Human relations*, 69(6), 1235-1258.
- Bygballe, L. E., Swärd, A. R., & Vaagaasar, A. L. (2018). Temporal shaping of routine patterning. *Paper presented at the PROS conference*, 20–23 June, 2018. Halkidiki, Greece.
- Cunliffe, A. L., Luhman, J. T. & Boje, D. M. (2004). Narrative temporality: Implications for organizational research. *Organization Studies*, 25(2), 261–286.
- Dille, T., Söderlund, J., & Clegg, S. (2018). Temporal conditioning and the dynamics of inter-institutional projects. *International Journal of Project Management*, 36(5), 673–686.
- Dille, T., Hernes, T., & Vaagaasar, A. L. (2019). Coordinating multiple organizational actors: The temporal challenge of temporary organizations. *Paper presented at the European Group for Organization Studies*, 2–4 July, 2019, Edinburgh, Scotland.
- Dille, T., & Söderlund, J. (2011). Managing inter-institutional projects: The significance of isochronism, timing norms and temporal misfits. *International Journal of Project Management*, 29(4), 480–490.
- Eisenhardt, K. M., & Tabrizi, B. N. (1995). Accelerating adaptive processes: Product innovation in the global computer industry. *Administrative Science Quarterly*, 40(1), 84–110.
- Engwall, M. (2003). No project is an island: Linking projects to history and context. *Research Policy*, 32(5), 789–808.
- Engwall, M., & Westling, G. (2004). Peripety in an R&D drama: Capturing a turnaround in project dynamics. *Organization Studies*, 25(9), 1557–1578.
- Feldman, M. S., & Pentland, B. T. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, 48(1), 94–118.

- Flyvbjerg, B. (2011). Over budget, over time, over and over again: Managing major projects. In P. W. G. Morris, J. Pinto, & J. Söderlund (Eds.), *The Oxford handbook of project management* (pp. 321–344). Oxford University Press.
- Gephart, R., Topal, C., & Zhang, Z. (2010). Future-oriented sensemaking: Temporalities and institutional legitimation. In T. Hernes & S. Maitlis (Eds.), *Process, sensemaking, and organizing* (pp. 275–312). Oxford University Press.
- Geraldi, J. G., & Adlbrecht, G. (2007). On faith, fact, and interaction in projects. *Project Management Journal*, 38(1), 32–43.
- Geraldi, J. G., Lee-Kelley, L., & Kutsch, E. (2010). The Titanic sunk, so what? Project manager response to unexpected events. *International Journal of Project Management*, 28(6), 547–558.
- Gersick, C. (1988). Time and transitions in work teams: Toward a new model of group development. *Academy of Management Journal*, 31(1), 9–41.
- Gersick, C. (1989). Marking time: Predictable transitions in task groups. *Academy of Management Journal*, 32(2), 274–309.
- Halbesleben, J. R., Novicevic, M. M., Harvey, M. G., & Buckley, M. R. (2003). Awareness of temporal complexity in leadership of creativity and innovation: A competency-based model. *The Leadership Quarterly*, 14(4-5), 433–454.
- Hatch, M. J., & Schultz, M. (2017). Toward a theory of using history authentically: Historicizing in the Carlsberg Group. *Administrative Science Quarterly*, 62(4), 657–697.
- Hernes, T. (2014). *A process theory of organization*. Oxford University Press.
- Hernes, T., & Schultz, M. (2020). Translating the distant into the present: How actors address distant past and future events through situated activity. *Organization Theory*. doi: 10.1177/2631787719900999.

- Hernes, T., Feddersen, J., Schultz, M. (2020), Material temporality: How materiality ‘does’ time in food organising. *Organization Studies*, doi: 10.1177/0170840620909974
- Hernes, T., & Pulk, K. (2019, July). A Temporal View of the Interplay between Continuous and Episodic Change. In *Academy of Management Proceedings* (Vol. 2019, No. 1, p. 11519). Briarcliff Manor, NY 10510: Academy of Management.
- Howard-Grenville, J. A. (2005). The persistence of flexible organizational routines: The role of agency and organizational context. *Organization science*, 16(6), 618-636.
- Hussenot, A., & Missonier, S. (2016). Encompassing stability and novelty in organization studies: An events-based approach. *Organization Studies*, 37(4), 523–546.
- Hutchins, E. (1990). The technology of team navigation. In J. Galegher & R. E. Kraut (Eds.), *Intellectual teamwork: Social and technological foundations of cooperative work* (pp. 191–220). Lawrence Erlbaum.
- Janicik, G. A., & Bartel, C. A. (2003). Talking about time: Effects of temporal planning and time awareness norms on group coordination and performance. *Group Dynamics: Theory, Research, and Practice*, 7(2), 122–134.
- Janowicz-Panjaitan, M. K., Bakker, R. M., & Kenis, P. N. (2009). Research on temporary organizations: The state of the art and distinct approaches toward ‘temporariness.’ In P. N. Kenis, M. K. Janowicz-Panjaitan, & B. Cambré (Eds.), *Temporary organizations: Prevalence, logic and effectiveness* (pp. 56–85). Edward Elgar Publishing.
- Jones, C., & Lichtenstein, B. B. (2008). Temporary inter-organizational projects. In S. Cropper, M. Ebers, & C. Huxham (Eds.), *The Oxford handbook of inter-organizational relations* (pp. 231–255). Oxford University Press.
- Kaplan, S., & Orlikowski, W. J. (2013). Temporal work in strategy making. *Organization Science*, 24(4), 965–995.

- Lifshitz Assaf, H., Lebovitz, S., & Zalmanson, L. (2018). The importance of breaking instead of compressing time in accelerated innovation: A study of makeathons' new product development process. Working paper. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3280219
- Lindkvist, L., Söderlund, J., & Tell, F. (1998). Managing product development projects: On the significance of fountains and deadlines. *Organization Studies*, *19*(6), 931–951.
- Lundin, R. A., & Söderholm, A. (1995). A theory of the temporary organization. *Scandinavian Journal of Management*, *11*(4), 437–455.
- Maniak, R., & Midler, C. (2014). Multiproject lineage management: Bridging project management and design-based innovation strategy. *International Journal of Project Management*, *32*(7), 1146–1156.
- Morris, P. W. (2010). Research and the future of project management. *International Journal of Managing Projects in Business*, *3*(1), 139–146.
- Noss, C. (2002). Taking time seriously: Organizational change, flexibility and the present time in new perspectives. In R. Whipp, B. Adam, & I. Sabelis (Eds.), *Making time: Time and management in modern organizations* (pp. 46–61). Oxford University Press.
- Orlikowski, W. J., & Yates, J. (1998). Genre systems as communicative norms for structuring interaction in groupware. CCS WP205.
- Orlikowski, W. J., & Yates, J. (2002). It's about time: Temporal structuring in organizations. *Organization Science*, *13*(6), 684–700.
- Reinecke, J., & Ansari, S. (2015). When times collide: Temporal brokerage at the intersection of markets and developments. *Academy of Management Journal*, *58*(2), 618–648.
- Remington, K., & Soderholm, A. (2010). Time: one factor influencing the project management of change. *International Journal of Project Organisation and Management*, *2*(3), 221–235.

- Rowell, C., Gustafsson, R., & Clemente, M. (2017). How institutions matter “in time”: The temporal structures of practices and their effects on practice reproduction. *Research in the Sociology of Organizations*, 48A, 303–327.
- Sayles, L. R., & Chandler, M. K. (1971). *Managing large systems*. Harper and Row.
- Schreyögg, G., & Sydow, J. (2011). Organizational path dependence: A process view. *Organization Studies*, 32(3), 321–335.
- Schultz, M., & Hernes, T. (2013). A temporal perspective on organizational identity. *Organization Science* 24(1),1–21.
- Schultz, M., & Hernes, T. (2019). Temporal interplay between strategy and identity: Punctuated, subsumed, and sustained modes. *Strategic Organization* (online), <https://doi.org/10.1177/1476127019843834>
- Sergi, V., Crevani, L., & Aubry, M. (2020). Process studies of project organizing. *Project Management Journal*, 51(1), 3–10. doi: 10.1177/8756972819896482.
- Slawinski, N., & Bansal, P. (2012). A matter of time: The temporal perspectives of organizational responses to climate change. *Organization Studies*, 33(11), 1537–1563.
- Staudenmayer, N., Tyre, M., & Perlow, L. (2002). Time to change: Temporal shifts as enablers of organizational change. *Organization Science*, 13(5), 583–597.
- Stjerne, I. S., Söderlund, J., & Minbaeva, D. (2019). Crossing times: Temporal boundary-spanning practices in interorganizational projects. *International Journal of Project Management*, 37(2), 347–365.
- Stjerne, I. S., & Svejenova, S. (2016). Connecting temporary and permanent organizing: Tensions and boundary work in sequential film projects. *Organization Studies*, 37(12), 1771–1792.
- Suchman, L. A. (1987). *Plans and situated actions*. University of Cambridge Press.

- Suddaby, R., Foster, W. M., & Trank, C. Q. (2010). Rhetorical history as a source of competitive advantage. *The Globalization of Strategy Research. Advances in Strategic Management, 27*, 47–173.
- Swärd, A. (2016). Trust, reciprocity, and actions: The development of trust in temporary inter-organizational relations. *Organization Studies, 37*(12), 1841–1860.
- Sydow, J., Lindkvist, L., & DeFillippi, R. (2004). Project-based organizations, embeddedness and repositories of knowledge. *Organization Studies, 25*(9), 1475–1489.
- Sydow, J., Schreyögg, G., & Koch, J. (2009). Organizational path dependence: Opening the black box. *Academy of Management Review, 34*(4), 689–709.
- Tsoukas, H., & Chia, R. (2002). On organizational becoming: Rethinking organizational change. *Organization Science, 13*(5), 567–582.
- Tyssen, A. K., Wald, A., & Heidenreich, S. (2014). Leadership in the context of temporary organizations: A study on the effects of transactional and transformational leadership on followers' commitment in projects. *Journal of Leadership & Organizational Studies 21*(4), 376–393.
- van Berkel, F. J., Ferguson, J. E., & Groenewegen, P. (2016). Speedy delivery versus long-term objectives: How time pressure affects coordination between temporary projects and permanent organizations. *Long Range Planning, 49*(6), 661–673.
- Weick, K. E. (1998). Introductory essay—Improvisation as a mindset for organizational analysis. *Organization Science, 9*(5), 543–555.
- Weick, K. E., & Quinn, R. E. (1999). Organizational change and development. *Annual Review of Psychology, 50*(1), 361–386.
- Wiebe, E. (2010). Temporal sensemaking: Managers' use of time to frame organizational change. In T. Hernes & S. Maitlis (Eds.), *Process, sensemaking, and organizing* (pp. 213–241). Oxford University Press.

Author Biographies

Tor Hernes is Professor of Organization Theory at the Department of Organization, Copenhagen Business School, Denmark and Adjunct Professor at USN School of Business, University of South-Eastern Norway. He does research on various aspects of organizational temporality inspired by works on the philosophy of time. His main focus is on the nature of events, how they emerge from interaction, and how they become means for actors to address distant pasts and futures. His book, *A Process Theory of Organization*, won the George R. Terry Book Award at the Academy of Management (AoM) annual meeting in 2015. Tor directs the Centre for Organizational Time at Copenhagen Business School. He can be contacted at atth.ioa@cbs.dk

Anne Live Vaagaasar is Associate Professor of Leadership and Organization at the Department of Leadership and Organization at BI Norwegian Business School. She publishes within the field of temporary and project-based organizing. Her research focuses on time, temporality, collaboration, routines, and knowledge work. She can be contacted at anne.l.vaagaasar@bi.no

Therese Dille is Vice Dean at the USN School of Business, University of South-Eastern Norway. She works with issues of time, institutions, and stakeholders in temporary organizations. She can be contacted at Therese.Dille@usn.no