

Temporal Structuring in Project Organizing: A Narrative Perspective

Time is at the heart of project organizing, yet it has received surprisingly little theoretical attention within the research field. Implicitly, most work in the field has taken an objective view of time which “exists independently of human *action*: [is] exogenous, absolute” (Orlikowski & Yates, 2002: table 1) and project organizing is time-paced (Brown & Eisenhardt, 1997). Others have taken a subjective view of time as “socially constructed by human action; culturally relative” (Orlikowski & Yates, 2002: table 1), and project organizing is an emergent phenomenon creating a negotiated order (Strauss, 1988). Drawing on their own research in project organizing Orlikowski and Yates (1994) move beyond these binary views by drawing on practice theory in which time is constituted by, as well as constituting, human action through *temporal structuring* (Orlikowski & Yates, 2002).

More broadly, there is growing awareness of the importance of time and temporality in organization theory (Ancona et al., 2001; Hernes et al., 2013; Lord et al., 2015; Shipp & Jansen, 2021) that is highly relevant for project organizing research. Reviews of the literature tend to emphasise cross-cultural contrasts in eastern and western perceptions of time articulated in dichotomies between Kairos and Chronos, process time and clock time, and subjective and objective perceptions of time (Reinecke & Ansari, 2015). Orlikowski and Yates (2002: 686) criticize this dichotomization in the following terms:

Focusing on one side or the other misses seeing how temporal structures emerge from and are embedded in the varied and ongoing social practices of people in different communities and historical periods, and how such temporal structures powerfully shaped those practice in turn.

The concept of temporal structuring aligns with recent work on *projectivity* as the forward-looking dimension of temporality (Emirbayer & Mische, 1998; Mische, 2009). Drawing on the phenomenology of future-perfect thinking (Schutz, 1967, 1973), Emirbayer and Mische (1998) emphasise the inherent subjectivity of the future while retaining a goal-oriented perspective on action. They then call for more research on how actors generate new possibilities for thought and action regarding the future. In this generation, narrative construction plays a central role as actors “locate future opportunities in relation to more or less coherent causal and temporal sequences” (Emirbayer & Mische, 1998: 989). They also follow Schutz (1967, 1973) in arguing that the project is a fundamental unit of action in projectivity. Our analysis will build on these insights and combine projects and narratives by arguing that the generation of *project narratives* is a central task of *temporal work* (Kaplan & Orlikowski, 2013) in project organizing.

Our theoretical contribution to project organizing research in this paper, therefore, is to develop a perspective on temporal structuring in project organizing which will allow us to give full weight to the multiple meanings of the word project as both noun and verb. We thereby aim move beyond the dichotomization of temporality inherent in most contemporary project

organizing research into objective and subjective perspectives by developing a narrative perspective in which time both constitutes and is constituted by projectivity. In doing so, we address the recent growing interest in project organizing research in both temporality (Delisle, 2019; Vaagaasar et al, 2020, Van der Hoorn & Whitty, 2015) and narratives (Sergeeva & Winch, 2020; 2021).

We do this in four steps. First, we use Orlikowski and Yates' (1994, 2002) discussion of temporal structuring to review existing theory in project organizing research, showing its current limitations. Next, we draw on Emirbayer and Mische's (1998) concept of projectivity with narratives at its heart. This step will show how time-pacing in project organizing is used to create the negotiated order of the temporary project organization through narratives that embody future-perfect thinking and are thereby goal-oriented. We will thereby develop a narrative perspective on project organizing which defines project narratives as those performative narratives that project an intended future. In the third step, we further develop the theoretical insights that this perspective can generate through a case vignette of the Eden Project before, in a final step, we draw out the three kinds of temporal work involved in generating project narratives – *convincing oneself*, *convincing the team*, and *convincing stakeholders*. In discussion, we suggest how this theoretically developed perspective can be applied to the practice of project organizing before we lay out the research agenda that our theoretical contribution implies. There is much conceptual confusion in current research on temporality (Shipp & Jansen, 2021), so we provide a glossary of the terms we use to craft our argument in Appendix 1. Terms included in the glossary are italicized in the text on their first use.

The Objective Perspective on Time in Project Organizing Research

The dichotomization between objective and subjective perceptions of time pervades contemporary theorizing in project organizing. The objective perception of time is central to the systems paradigm of project management as a strategic planning discipline (Cleland & King, 1983; Morris, 2012). Fundamental to the systems paradigm in project organizing is a clearly specifiable output – a defined future state – against which plans can be made for its achievement (Morris, 1994; Meredith et al, 2017). At the heart of the systems perspective is the work breakdown structure (WBS) which takes the intended output of the project and breaks it down into a series of inter-related tasks which can then be assigned to appropriately skilled teams for execution (Morris, 1994; Turner, 2014). All tasks have an estimated duration (whether probabilistically estimated or not) and an implicit or explicit resource loading. Fundamental to the inter-relation between tasks is their sequential (and hence temporal) dependence in that many tasks can only be started once pre-requisite tasks have been completed. The combination of task duration and sequential dependence creates a schedule which arrays tasks through time and thereby identifies the longest sequence of tasks through the array where the earliest and latest finish times for each task are all equivalent, and there is, therefore, no slack between them. This sequence is usually known as the “critical path” for the project and identifies its shortest possible overall duration. This temporal sequence can be presented analytically using critical path analysis and associated schedule risk analysis techniques such as Monte Carlo, and graphically by using presentational tools such as Gantt charts. These practices are typically

standardized in project management bodies of knowledge such as those of the Project Management Institute that embody an objective perspective on time (Delisle, 2019).

Time is also central to the budgetary analysis of the project. The principal tool here is cost-benefit analysis (CBA) which takes the estimated budget for the project and discounts through time the cash flows for the project – both expenditure and income from utilising the output once delivered – to create a net present value upon which the allocation of financial resources to the project can be decided. While CBA is conducted at a high level of abstraction, the interaction between the budget for the project and the schedule analysis above provides the basis for the performance measurement baseline for the project against which the budget is managed through time using earned value analysis (Fleming & Koppelman, 2016; Morris, 1994).

Although some recent developments in the systems paradigm such as agile approaches have relaxed the specifiable output criterion, they have done this by reinforcing the objective perspective on time by timeboxing through time-paced iterative development cycles (Boehm & Turner, 2004; van Oorschot et al 2018). Iterative analysis and learning from past experience (previous projects) produces a clear decision point which is supported by both CBA which relates benefits to costs in a positive way and a clear project duration without which the discounted ratio of costs to benefits could not be calculated. This defined future state is then delivered through time by controlling against plan and deviations from that plan in terms of schedule and budget are temporally defined as overruns. Such overruns are conceptualized as risks to the achievement of the intended goals (Chapman & Ward, 2011; Morris, 2013). Concepts derived from the analysis of complexity (Geraldi et al., 2011; Ramasesh & Browning, 2014) have also enriched the systems paradigm with an essentially objective (Maylor & Turner, 2017) notion of complexity as a contingency factor.

The emphasis on general managerial skills and hence mainstream organization theory led to growing awareness of a distinctive aspect of project organizing – the temporary project organization (Bakker, 2010; Burke & Morley, 2016). The project organization is thereby defined by its objective temporality as being determinate (Burke & Morley, 2016; Lundin & Söderholm, 1995; Winch, 2014); that is to say, the project organization will cease to exist at some agreed point of time in the future, and all stakeholders are aware of this at project inception. While that date may shift as the project unfolds, its existence in principle is never in doubt. This introduces a further objective temporal dimension into project organizing, the lifecycle (Ancona et al, 2001) through which project organizations move progressively over time in a distinctive way (Cleland & King, 1983; Lundin & Söderholm, 1995; Morris, 1994).

< figure 1 about here >

Figure 1 Objective Perspective on Temporality in Project Organizing Research

In order to capture the temporal essence of each perspective within the project organizing research that we review in this paper, we have developed Figures 1 to 3 which consist of variations on two elements. The first element is a network which visualizes the multiple possible paths between the past, the present and the future. The second element is the path

projected through that network for a single project of interest within each perspective indicated by the bold (red) path. Temporally, the systems paradigm can be captured visually as in Figure 1, showing how at the decision point $t_{p(\text{resent})}$ the project draws on learnings and experiences from projects in the past to decide on a future course of action towards a defined future state at a determinate $t_{f(\text{uture})}$ indicated by the bold path. In this perspective the past, present and future are perceived as objective and outside human experience as the fourth dimension (Hernes et al., 2013).

The Subjective Perspective on Time in Project Organizing Research

Over the last 20 years, there has been a growing critique of the systems paradigm in project organizing on the grounds that it frequently failed to live up to expectations, and that a different approach is required (e.g., Hodgson & Cicmil, 2006; Winter et al., 2006). There have been many responses to this challenge (Jacobsson et al, 2016; Padalkar & Gopinath, 2016; Svejvig & Andersen, 2015; Walker & Lloyd-Walker, 2016), but an influential one may be called the *actuality perspective* which focuses on the lived experience of managing projects (Cicmil et al., 2006) and proposes a distinctively subjective perspective on temporality in project organizing. The actuality perspective on project organizing draws heavily (Van Der Hoorn & Whitty, 2015) on a phenomenological perspective on time (Heidegger, 1962) which is both subjective (Blattner, 2005; Hoffman, 2005) – what Heidegger calls world time - and also has ontological dimensions. This perspective pays attention to drift (Kreiner, 1995; Usher & Whitty, 2017) and flow (van der Hoorn, 2015) in project organizing where the past, present, and future are ontologically fused (Blattner, 2005). A similar perspective which does not necessarily draw on Heidegger can be found in post-modern perspectives on organizational change and hence project organizing as becoming (Packendorff et al., 2014; Tsoukas & Chia, 2002).

Perspectives derived from some aspects of complexity theory stress the importance of emergence in complex project organizing (Daniel & Daniel, 2018;) as a subjective perspective (Maylor & Turner, 2017) on project organizing. This perspective stresses also the importance of the lived experience of projecting (Cooke-Davies et al, 2007) and conceptualizes projects as self-organizing systems (de Blois et al, 2016; Pryke et al., 2018) or as complex adaptive systems (Daniel & Daniel, 2019).

Without suggesting theoretical consensus, we would argue that all these contributions share a subjective perspective on temporality in which project organizing is achieved through an emerging negotiated order (O’Leary & Williams, 2013; Strauss, 1988) in the manner shown in Figure 2. This shows that at t_p , there are multiple possible paths forwards, and that the future end point of the project at t_f cannot be usefully determined in any detail (Kreiner, 1995) or be projected from past experience due to the inherently uncertain nature of that future. The focus of research attention in the actuality perspective is then on the lived experience of managing projects in the present. Thus Figure 2 presents a subjective perspective on time where the future is emergent from the present (Tsoukas & Chia, 2002) as the project moves from t_p towards t_f along the bold (red) path through the network of possibilities. It shows how sense made of the present and past entails enactments which evolve through time by selection and retention

(Weick, 1979) as project organizations construct their futures. Whilst time's arrow moves from left to right in both the objective and subjective perspectives, in the former the path forward is determined in principle, while in the latter it is fluid in practice.

<figure 2 about here>

Figure 2 The Subjective Perspective on Temporality in Project Organizing Research

The Narrative Perspective on Time in Project Organizing Research

Both the subjective and objective perspectives offer considerable insights into the challenges of project organizing. Project organizing is demonstrably oriented towards a defined future state, as shown in Figure 1. If there is not defined future state, resources are not mobilized for a project and the temporary organization does not exist. On the other hand, project organizing often fails to achieve a single pre-defined future state on many occasions as shown in Figure 2 by its multiple possible paths forwards from t_p . This suggests that we need to move beyond the stark duality of competing objective and subjective perspectives on time in project organizing and we draw on the concept of temporal structuring (Orlikowski & Yates, 2002) to do so. We further suggest that the concept of projectivity (Emirbayer & Mische, 1998) allows us to take this agenda further forwards. The principal theoretical concern of Emirbayer and Mische (1998) is the nature of human agency in the context of developing a relational sociology (Porpora, 2015). They argue that human agency is fundamentally temporal with a chordal triad of the iterative which reflects on the past, the projective which generates the future, and the evaluative in which experience is contextualized in the present. Our concern here is the projective, which has a dominant tone of narrative construction. We suggest, therefore, that narratives are the principal way in which we imagine the future and hence their crafting is an important aspect of temporal work (Kaplan & Orlikowski, 2013), defined as “addressing tensions (implicitly or explicitly) among different understandings of the past, present, and future to settle on a strategic account for the organization” (Shipp & Jansen, 2021:334).

Emirbayer and Mische (1998) draw heavily on Schutz' phenomenology in developing their argument. Whilst Schutz' (1967) principal aim in developing his phenomenology of everyday life is methodological, showing how sociology can actually achieve Weber's aim of providing explanations adequate at the level of meaning as well as cause, he develops an ontology that offers much insight for theorists of temporality in project organizing. He argues that all purposive action, as opposed to reactive behaviour, has the nature of a *protention* or a vision of a completed future state which gives present meaning to that subsequent action which will bring forth that future state. Thus whilst the protention is cognitive in that it exists as a perceived state, it is qualitatively different from a *retention* which is inherently a perception about the past. However, because the protention, like a retention, is perceived as completed, “the planned act has the temporal character of pastness” (1967: 61) and is therefore thought of in the future perfect tense. This is formulated as “will have been” in English; French and German have analogous tenses, although Russian does not.

The distinction between *action* and *behaviour* is crucial for Schutz (1967). He defines behaviour not just as an instinctual, non-reflective, activity, but as a conscious, social activity

in a way that is similar to being-in-the-world (Heidegger, 1962; 1971). However, Schutz (1967) moves on from Heidegger who holds that “projecting has nothing to do with comporting oneself towards a plan that has been thought out” (Heidegger, 1962: 185) by arguing that it is precisely this thinking out that distinguishes behaviour from action. As Schutz argues in clarifying the differences between himself and Weber:

Any conscious experiences arising from spontaneous activity and directed towards another self are, by our definition, social behavior. If this social behavior is antecedently projected, it is social action (1967: 146).

In developing this perspective, Schutz (1967) emphasises the motivational aspect of future-perfect thinking, showing how it provides the future-orientated *in-order-to* motive for an action in the present, rather than the past-orientated *because* motive for action. He is also careful to distinguish future-perfect-thinking from pure fantasy by the criterion of the feasibility of the act.

The possibility of executing the project requires.... that only ends and means believed by me to be within my actual or potential reach may be taken into account by my projecting.... that all the chances and risks have been weighed in accordance with my present knowledge of possible occurrences of this kind in the real world (Schutz, 1973: 73).

However, the act remains an empty protention; it is an abstraction which indicates the direction of travel, but not the journey whose steps remain to be filled in:

Projecting like any other anticipation carries along its empty horizons which will be filled in merely by the materialization of the anticipated event. This constitutes the intrinsic uncertainty of all forms of projecting (Schutz, 1973: 69).

Figure 3 presents temporality from the narrative perspective on project organizing we are proposing in which organizations strategically pretend the completed act in a project narrative and then orientate their managerial action to *filling in* the act through project organizing, choosing between multiple paths as they do so. In the narrative perspective, the subjective aspect of time flows from right to left which the objective aspect flows from left to right. Figure 3 therefore shows how future-perfect thinking pretends a desired end state or outcome for the project that leaves the filling in, and hence the lived experience of the project, to be negotiated through time (Strauss, 1988). We can conceive of the filling in over the project lifecycle as a progressive reduction of uncertainty through time as a learning process (Midler, 1995; Winch, 2010) and the desired future state as the pivot of *endgaming* (Pitsis et al., 2003) where socially constructed future deadlines are iteratively reified to shape present action through temporal work. The processes of filling in require the mobilization and motivation of large resources from stakeholders which are ordered through the iterative endgaming process. In a very practical sense, endgaming is what drives the arrow of action from right to left in Figure 3 even though time’s arrow objectively and subjectively flies from left to right.

<figure 3 about here>

Figure 3 Temporality in the Narrative Perspective on Project Organizing Research

However, endgaming is more about filling in than protending and leaves open the question of how the future-perfect is projected. Projects of all sorts build on imaginations about the future. We argue that project organizing is constituted by the anticipation of future outputs and outcomes that subsequently guide and give sense to the lived experience of project organizations. Project organizations are designed with explicit and negotiated outputs and outcomes or they do not exist as temporary organizations (Winch, 2014). The protended futures in relation to projects are aspects of the present, however. They are protentions in the sense that the actor imagines the future state of affairs to have arisen already, enabling him or her look back on the present situation and imagine the steps connecting the present with the future. The imagination of a particular future, and the imagination that it has already materialized, are the foundation for acting (as opposed to behaving) in the present. This imagination entails, we suggest, three complementary and intertwined types of temporal work – convincing oneself, convincing the team, and convincing stakeholders. We further propose that project narratives constitute the performative intent (Sergeeva & Winch, 2021) that allows these imagined futures to be projected and communicated.

Projecting the future with narratives

Our argument builds upon narrative theory which conceives of narratives as “unique discursive constructions that provide essential means for maintaining or reproducing stability and/or promoting or resisting change in and around organisations” (Vaara et al., 2016: 496). We follow the arguments developed about narrative temporality as a polyphonic perspective on time through which people construct a more holistic and embedded narration of experience (Cunliffe et al., 2004). Thus, the performance of narratives takes place in practical circumstances and in moments of time and context in which meanings may vary. Narratives thereby generate unique discursive spaces which may unfold over time to create shared discursive spaces. The present, past, and future are experienced thereby through a unity of perpetual referring, meaning that our reflection is influenced by our currently experienced moments in time and the future moments we may be anticipating (Czarniawska, 2004; Czarniawska & Gagliardi, 2003). Thus, narratives of the past, the present and the future are based on resources that enable but also constrain articulations; and emergent *ante-narratives* are seen as bets some of which may succeed and become institutionalized parts of organizational strategy (Boje et al., 2016; Vaara & Petersen, 2013) where an ante-narrative is defined as “nonlinear, incoherent, collective, unplotted, and pre-narrative speculation, a bet a proper narrative can be constituted” (Boje, 2008: 2).

During projecting, organizations (re)construct narratives that reimagine the past and present in ways that allow the corporation to explore multiple possible futures but for a narrative to guide strategic choices it has to be coherent, plausible and acceptable to most stakeholders (Barry & Elmes, 1997; Kaplan, 2008; Sergeeva & Winch, 2021). Narratives are often repeated in organizations because repetition serves to stabilize particular meanings (Dailey & Browning, 2014; Sonenshein, 2010) and elite policy makers use plotted, plausible and repeated narratives to shape the reactions of those in their environment (Abolafia, 2010). Narratives are often seen

as strategic with an explicit intention of persuading stakeholders (Brown, 2006; Kornberger & Clegg, 2013), and can therefore be defined as performative in the sense of commissive declarations of intent (Austin, 1963).

Building on this research, we define project narratives as those coherent, performative narratives that project an intended future for the organization that will subsequently be filled in by project organizing (Sergeeva & Winch, 2021). In other words, project narratives with performative intent are about getting something done and therefore about action in the sense defined by Schutz (1973). Project narratives include those that are pitched by entrepreneurs to appeal to potential external financiers (Garud et al, 2014; Manning & Bejarano, 2017) and those ante-narratives that are articulated in competition with each other to obtain resource allocations (Boje et al, 2016; Kaplan, 2008). They also include complementary narratives around challenges such as value creation in temporary project organizations (authors, 2019) and *counter-narratives* in opposition to the performative intent (Sergeeva & Winch, 2020; 2021). Thus “long-term projects also require sense to be made of future possibilities by reflecting on anticipated situations in order to influence design decisions made in the present” (Alderman et al., 2005: 384).

Vignettes in Project Organizing Theory Development

In order to fill in our narrative perspective we present a vignette as an analytical narrative (Knights & Scarbrough, 2010) of the temporal work involved in generating project narratives. As argued by Cunliffe and Coupland (2011), vignettes offer a way of exploring and theorizing how we make life sensible through embodied narrative performance and illustrate the temporal nature of sensemaking through iterative and projective narrative performances. We do this by drawing on a type of empirical source that is not often used for theory development in project organizing research. There are multiple accounts of project organizing published by both embedded journalists and project participants which form a naturalistic data source (Ninan, 2020) – albeit offline. Embedded journalists have produced accounts of projects for computer hardware development (Kidder, 1982); the development of a new car (Walton, 1997); fine art museums (Sabbagh, 2000) and megaprojects (Fetherston, 1997) amongst others. These written accounts are increasingly complemented by television reportage and dedicated YouTube channels (Sergeeva & Winch, 2021). Sources such as these can provide rich pictures of the lived experience of project work from the senior leadership team down to the manual workers doing the digging. A second group of accounts by project participants themselves can also provide richness such as Doherty (2008), Greiman (2013) and Stride (2019) on megaprojects, and Gilbert and Green (2021) on vaccine development. These are, perhaps, of more mixed value than the reports by embedded journalists, but they have the merit of stressing what is of importance on the project to key participants. In particular, both these types of naturalistic data source provide insights into the shaping practices on projects that are rarely captured in mainstream empirical research in project organizing which largely focuses on project delivery.

For our vignette in support of theory development, we have selected a case where two different accounts by participants are available, both of whom were involved in the project from its earliest inception. The accounts were prepared independently; indeed, Ball (2013) was written

explicitly as a corrective to Smit (2002), which gives a degree of triangulation on the case. For our argument, these accounts have the advantage that we can capture articulations of the future state while knowing what the outcome of those projections was. The disadvantage is that our sources also largely share this hindsight and reporting of the original projections may be biased. We therefore present this as an illustrative case vignette supporting theoretical development rather than an empirical contribution to theory as a version of longitudinal strategy narrative research (Dalpiaz & Di Stefano, 2018). In presenting the vignette we paid particular attention to temporality of project narratives and the way project champions project the future thereby turning the project mission into the project output and outcome (Winch et al, 2022).

Temporal Work in Project Organizing: The Eden Project

The Eden Project (www.edenproject.com) in Cornwall is one of the most successful UK Millennium projects opening in March 2001 to provide an outstanding experience to double the number of visitors envisaged in the 1997 business case. A large covered biome provides a humid tropical environment, while a smaller one provides a warm temperate environment totalling between them 2.1 hectares. The cool temperate environment is in the third, uncovered, outdoor biome. An education centre – The Core – opened in 2005. It was the site of the dinner hosted by HM Queen for the world leaders attending the G7 summit in June 2021. Constructed in a redundant south-facing china clay pit, the project presented an enormous range of challenges and provides a vivid example of the power of “telling future truths” (Smit, 2002: 14).

In 1993, the UK government established the National Lottery to fund, amongst other good causes, the Millennium Commission. Its purpose was to celebrate the forthcoming second millennium with calls for a scientific or engineering project that becomes one of the wonders of the third millennium (Ball, 2013). Amidst disparaging remarks about Æthelred, the English king at the time of the first millennium, the call was for a future-orientated initiative that would excite and inspire. A number of projects of various kinds was supported by the Millennium Commission with the aim of celebrating the coming of the third millennium and leaving a lasting legacy. The most successful of the 12 larger Landmark projects (Millennium Commission, 2003) was The Eden Project. The idea for Eden was prompted by the garden festivals of the early 1990s which attempted to regenerate run-down urban areas and was distilled from a conversation over a bottle of whisky in a farmhouse kitchen one night in May 1994. The driving forces of the early days of the project were Tim Smit who had rescued and opened to the public the Lost Gardens of Heligan in 1992 (Smit, 2000) and Jonathan Ball a successful local architect. The two complemented each other with Smit’s horticultural expertise and fluid ability to articulate compelling narratives, and Ball’s architectural expertise and extensive networks amongst the higher echelons of both Cornish and London society. These latter connections included official roles for the Royal Institute of British Architects, and membership of one of the grander gentleman’s clubs.

The mission statement captured the prospective narrative of the project in the autumn of 1994. It read:

To create under one roof a range of natural habitats found on planet Earth... An international resource designed for research, education, and public enjoyment to herald the new Millennium, bequeathing a gift of incalculable value to those who will follow us ... our hope for and belief in the future (cited Ball, 2013: 190).

Funded by pump-priming money from the local government sources, a mix of Smit, Ball, other local players, and horticulturalists energetically developed their ideas. These ideas were captured in a variety of architectural sketches in both plan and elevation, sometimes prepared on restaurant menu cards. They resulted in Eden being submitted as the UK entry to the architectural Venice Biennale in 1996. The project was possibility and not fantasy to due to the launch of the Millennium Commission in 1994. An outline proposal was submitted in April 1995. The first paragraph of that submission read:

The concept of the Millennium is rooted in recognition of that significant midnight when we look backward to the past and forward to the future simultaneously. Its social value lies in concentrating our minds on past achievements, present problems and future possibilities. Any project designed to mark this transition should excite interest, understanding and involvement in shaping a desirable future (cited Ball, 2013: 21)

However, the outline proposal was turned down as under-developed but this did not faze Smit. Upon receiving the news, he said to Ball: “we’re going to bluff it out. We’re going to tell everyone that we have caught their [the Millennium Commission’s] imagination and have been asked to work it up some more. And what’s more, we’re not going to take no for an answer” (Smit, 2002: 73).

A significant re-think was required and the team decided to assemble some of the leading players in the UK construction industry to add credibility to their efforts. However, funds were very tight, and so these players were recruited through Ball’s personal contacts on the basis that they would not be paid unless the project were successfully funded. Remarkably, they agreed to participate. The architects, Nicholas Grimshaw and Partners, worked on developing the design concept. They soon realized that their original idea (a reprise of Grimshaw’s Waterloo International Terminal) would not work propped against the side of the clay pit, because the structure was too heavy for the span and the ground too uneven and continually changing due to continued working of the pit for clay. The inspiration for Grimshaw’s final design was a soap bubble that can mould itself to whatever surface it alights upon; their technical solution a geodesic dome. The erection of the structure on the 858m long ground beam required the largest freestanding scaffold in the world, followed by installation of the cladding panels by abseilers. Civil engineering works included moving 800 000m³ of fill by the construction manager McAlpine JV. This consisted of Sir Alfred McAlpine plc and Sir Robert McAlpine Ltd who came together for the first time since the firm had split in 1940 because it was “the ultimate construction project” (Smit, 2002: 99).

Ball managed to convince all of these firms, together with some of the leading international consultancies such as Ove Arup and Davis Langdon, to work for free to develop the design while Smit and the team lobbied the Millennium Commission. The Commission did not fund

development work prior to full bids, and so it was not obvious anything was amiss and the team struggled on private donations and small grants. By mid-1996, the lobbying achieved results and Eden was back in the competition with a submission due in December with a budget of £74.3m. The news that Eden had been successful was announced in May 1997, and so the McAlpine JV was notified as preferred bidder for the delivery phase of the project in June 1997. The relationship was reinforced by appointing a Director of Sir Robert McAlpine to the Eden Board in 1998. This relationship would be of enormous benefit later during construction when the project nearly ran out of cash owing the JV millions and the McAlpine director steadied the boat by reiterating commitment.

Funding came from a wide variety of sources - Millennium Commission funds only provided 50% of the total capital requirement of nearly £80m. Smit's credibility with the success of Helligan enabled seed corn funds from the county (Cornwall), local charities and private interests. The ability of Ball to network, both locally within Cornwall and nationally, garnering enthusiastic commitment was impressive, mobilising the right people to solve difficult problems - particularly those associated with finding the other half of the funding for the project. These skills encouraged the head of a neighbouring county, Somerset, to back publicly the Cornwall project for European Commission structural funds at his own county's loss. At the formal signing of the legal agreements for the finance Eden's legal lead noted that "the most extraordinary thing about it all was that we'd persuaded such a wide group of people, many of whom would have found it easier to walk away, to stay at the table and find a reason for saying yes" (Smit, 2002: 227).

With the funding announcement, the project reached a turning point:

There comes a time in all great ventures when the talking has to stop. We'd created the constituencies, we'd talked the hind legs off donkeys, we'd been snake-oil salesmen with attitude and a dream to peddle, but turning a dream into a reality needs iron in the soul, money in the bank, and military organization (Smit, 2002: 117).

Finally, the clay pit was purchased in October 1998, and the construction contract signed in January 1999. By this time, the McAlpine JV had worked for nearly two years without a contract, as had most of the consultants. Intensive construction on site started in February 1999, and the complete facility opened in March 2001 ahead of schedule and to budget. Eden is a remarkably successful project; Smit ascribes this success, fundamentally, to "the act of faith that enabled so many people to sign up to Tinker Bell Theory was a testament to the Spirit of Eden taking hold" (Smit, 2001: 102). In that sense, "Eden was never about plants and architecture, it was always about harnessing people to a dream and exploring what they are capable of" (Smit, 2002:159).

Temporal Work in Project Organizing

What might be the broader theoretical implications of this case vignette? A first observation is that we can see three types of temporal work in the case. The first type is convincing oneself. We can see in the Eden case how the original idea for the project emerged during late night socializing. This play of the imagination in relaxed conversation convinced Smit of the germ

of a viable idea drawing on his experience with Heligan and the existence of the Millennium Commission as a potential source of investment. In convincing himself, Smit emphasized the importance of Tinker Bell – the fairy who only exists if you believe in her (Barrie, 1995). The project champion's willingness to let present action be guided and determined by protentions depends on his or her acceptance of the projected future as realistic and relevant. Project champions have to convince themselves about the achievability of the act, which suggests the importance of faith in temporal work. We suggest that projects only exist if actors have personal faith in the project narratives they generate, and so the first kind of projective temporal work is cognitive. If the project champion does not believe in the project, then, like Tinker Bell, the project will not exist. This is echoed on the Channel Fixed Link project by the Chair of its Board:

If I was to sum up the overriding ethos which governed the directors ...it was the unarticulated faith, difficult to define or explain, but an abiding faith that we would get there in the end (Henderson, 1987: 15).

The second type of temporal work is convincing the team of supporters and advocates of the project who form a loose team of project supporters. Smit did this in a “snowballing” way, first convincing Ball and then working closely with him to convince people in their social and professional networks to join them in the enterprise. In convincing others, each played to their strengths combining Smit's vision and Ball's professional networks. As soon as the context changes from individual human action to group action we encounter new requirements in the materialization of cognitive work (Stigliani & Ravasi, 2012). The team of project supporters has to adopt and subscribe to the same protention if they are to coordinate their efforts and collaborate on the same project. The protention of some actor – a project champion - has to be believed by the other parties in the project. Thus, project champions have to convince their social and professional networks about the achievability of the projected acts constituting the project. If not enough people in their social and professional networks are convinced about the achievability of the projected act it is not likely that they will let their current action be guided and directed by the project narrative. When that is the case, the project disintegrates. The early phases of the shaping of many projects are essentially speculative, with no income stream to reimburse efforts, so such motivation is essential. The second type of projective temporal work is therefore convincing others in the social and professional networks around the project to share and espouse the project narrative and to commit to the actions required to achieve it as part of the team of project supporters. This then mobilizes small amounts of speculative financial resources and, probably more importantly, moral support within social and professional networks for the project.

The third type of temporal work is convincing stakeholders. Convincing oneself and the team is necessary but not sufficient. Project teams do not operate in isolation but owe their existence and resources to important stakeholders in their context of operation. Regulatory and financial support must be obtained and maintained in order to get any project going; suppliers also need to be convinced that the owner is viable (Winch et al, 2022). Crucial to the success of the Eden project was convincing the Millennium Commission that it was a viable project. Gaining the commitment of suppliers who were convinced to work speculatively in the initial phases and

to remain publicly committed to the project in latter challenges was also crucial. Convincing stakeholders also included convincing many different potential providers of the other half of the finance in the form of matched funding, the officials of a competing county, and, finally the visiting public. Since such external stakeholders are not held responsible for achieving the projected act, their criteria for accepting protentions may be more contingent and less emotional than oneself or the team, but the original narrative of a perfected future retains its motivating force. Here we need to address the legitimacy (Garud et al., 2014) of the narratives generated and whether the narrative can combine both credibility and novelty (Barry & Elmes, 1997). In the Eden case, credibility for the narratives was achieved through both Smit's track record with the Heligan project and Ball's networks amongst the right people in the right places. Novelty was achieved through the scale of the vision generated – Eden was, and remains, unique. It was this novelty, combined with credibility, which convinced many of the stakeholders to support the project with the needed resources. The need for teams to convince stakeholders, particularly holders of financial resources, generates *framing contests* between teams (Kaplan, 2008; Kaplan & Orlikowski, 2013).

We can see how the three types of temporal work that we have identified in the accounts of the project reinforce each other as they draw on resources from the past such as experience on earlier projects. These are complemented by generating more extended social and professional networks to work with the present opportunity of Millennium Commission funding to achieve an inspirational future vision called Eden. As the project moved from convincing oneself, to convincing the team, to convincing stakeholders the project narrative was iterated and re-iterated both informally, and through formal submissions to stakeholders for government support and financial resources.

Project narratives, we propose, are about connecting the future with the present and the past in with performative intent in project organizing. These are inherently temporal in nature; project narratives are dynamic throughout project life cycle. At different stages of the project lifecycle the project narrative plays different roles (Sergeeva & Winch, 2021). Before the project begins it is important to establish a *project shaping narrative* which is then presented in the form of visualizations and documentation (i.e. becomes formalized) and communicated to various stakeholders in order to garner finance from investors, to mobilise key suppliers, and to convince regulators to approve the project. At earlier stages of the project lifecycle, project promoters aim to establish and sustain a coherent and consistent shaping narrative about the projection. Their responsibility is to communicate clearly and persuade project team members to understand and diffuse the project narrative. This can be done by rehearsing the same project narrative over several times so that everyone understands and relates to the project narrative in their day-to-day work whereby it becomes *storytelling* (Winch et al, 2022). At later stages of project lifecycle, the project narrative may need to be modified and updated to a *project delivery narrative* to infuse the culture of the project delivery organization, yet project champions are also expected to be consistent with the original narrative of the project mission (Winch et al, 2022).

Temporal Structuring in Project Organizing

<Figure 4 about here>

Figure 4. The Narrative Perspective and the Practice of Project Organizing

We can summarize these arguments as shown in Figure 4, in which we apply the inevitably rather abstract language of theory development to the practice of project organizing. Figure 4 shows the temporal structuring of project organizing as the interplay between the projecting of the project shaping narrative and the filling in of the project delivery narrative. The protended future act can be characterized as the project mission (Winch, 2010; Mazzucato, 2021) which is generated through the temporal work of convincing oneself, convincing the team, and convincing stakeholders into a project shaping narrative. The project mission provides goal-orientation for project organizing and time's arrow flows as a narrative from right to left. Thus in cognitive terms, the project shaping narrative flows back from t_f to t_p as shown by the lower long arrow. The future-perfect projection thereby shapes the project mission in present decision-making. By convincing project champions, their teams and resource-rich stakeholders the project shaping narrative charters the project organization.

Action is then required to fill in the projection, and this is supported by the generation of the project delivery narrative which articulates the project mission in terms of outputs (physical assets) and outcomes (beneficial use of those assets) at some point in the future (Winch et al, 2022). This is shown by the upper arrow which cognitively flows from t_p to t_f in a series of planning and learning cycles. Filling in has the process structure of variation, selection and retention (Weick, 1979) through iterative cycles, but always in the context of the project shaping narrative which provides goal-orientation. The actual outputs and outcomes achieved by the project when t_f becomes t_p are not necessarily completely aligned, but retain a family resemblance or the project is deemed a failure. It is the process of filling in that creates the lived experience of the project for members of the project team and their stakeholders. In ethnographic research on the design practices for a new building, filling in is described as *future making* (Comi & Whyte, 2018). If the shaping and delivery narratives move too far apart then the project will likely be abandoned. This is always a significant possibility because filling may be highly contingent and error-prone (MacKay & Chia, 2013). Frequently the outturn budget and schedule are outside the expectations raised for stakeholders in the shaping narrative with inevitable implications for the evaluative dimension of temporality (Emirbayer & Mische, 1998) once the project outputs and outcomes desired by the project mission are achieved and the temporary project delivery organization has been closed down.

Figure 4 shows that shaping and delivery are fundamentally different processes cognitively, which should not be confused with each other. Actual outcomes on projects cannot be explained by the protention but always imply situationally adapted action in the context of complexity and uncertainty. There is therefore no direct causal link between the project champion's cognitive efforts at t_p and the eventual state of affairs at t_f . The link is performative and hence motivational. It also shows how the project mission as a desired future state is projected and thereby constituted through project narratives which mobilize the resources required for the project from stakeholders while delivery project narratives facilitate endgaming to coordinate execution through the lifecycle of the project delivery organization as iterative cycles of future-making through planning as learning (de Gues, 1988) with intermediate endgaming. This practice of future-making is shown by the short blocks in Figure

4. Whilst these narratives are principally linguistic, they can also include symbolic narratives such as the fish tank symbolising the project narrative of the Sydney Waste Water project (Clegg et al, 2002). Project shaping narratives enable the project mission to be projected into the future as a completed act. Project delivery narratives constitute the filling in of the project mission through endgaming around future-making and milestone achievement.

At this point in the argument we should be clear that we are not arguing that well-crafted project narratives are a sufficient condition for a project to move towards a successful outcome. The fabric of everyday organizational life consists of verbal and physical actions and narratives that do not make sense when explained by simple chronology. As argued by Czarniawska and Gagliardi (2003: vii) “organizing makes narration possible, because it orders people, things and events in time and place,” but the reverse is also true and narratives make organization possible (Currie & Brown, 2003; Rhodes & Brown, 2005). We organize our experience of what has happened, what is happening and our vision for the future in the form of narratives, stories, myths and other discourses. Narratives and narrating are important parts of project organizing, with recollections of past events taking place in present time (e.g., narrating of ongoing events, strategies, reactions of other organizational actors), and may focus on the future (e.g., planning for project outputs and outcomes). There is evidence – at least for megaprojects – that narratives that espouse future aspirations rather than present benefits tend to be more successful in the temporal work of convincing stakeholders (Sergeeva & Winch, 2021). However, the extent to which project narratives are achievable will depend on many factors, including technological limitations; the scale of resources required; and the socio-political context. Our argument is that convincing narratives are a necessary condition for project organizing, and so worthy of greater research attention in project organizing research, not a sufficient one.

Towards a Research Agenda on Temporal Structuring in Project Organizing

There is a growing research on narratives in project organizing (e.g. Boddy & Paton, 2004; Carlsen & Pitsis, 2020; Veenswijk & Berendse, 2008) and we believe that this paper contributes to this stream of research. Indeed, our narrative perspective on temporality in project organizing research suggests a number of fruitful lines of empirical enquiry, to complement a research agenda on project narratives (Sergeeva & Winch, 2021). One is whether particular tools and techniques are used more comprehensively in projective temporal work than evaluative and iterative temporal work. We suggest that visualisation tools are likely to be more widespread in the former. While projective spreadsheet and textual analyses will surely play an important role, they are unlikely to engage the prospective faith of team members and stakeholders – visual artefacts such as sketches, drawings, 3D visualizations and the like are more powerful here (Comi & Whyte, 2018) and were extensively used in the early phases of the Eden project. This observation suggests that connecting projective temporal work in project organizing with the design thinking research (Elsbach & Stigliani, 2018) would be fruitful.

A second line of enquiry is the importance of project peripety (Engwall & Westling, 2004) which we reformulate as shift in emphasis from project shaping narratives to project delivery narratives as the project organization fills in the projected act. Smit shows how projects move from peddling dreams to iron in the soul, yet we know little about how these transformations

take place. As Smit suggests, the relationship is arguably more one of transition rather than opposition, and one of the research challenges is how narratives make the transition – or peripety – between these two perspectives. Related to this observation is the point that the script of project narratives may be different either side of this peripety. In the early, shaping phases of the project the narrative is outwardly broadcast in an inclusive way as the project garners resources. In the later, delivery phases of the project resources are largely in place and the project organization is committed to filling in the protention through future-making and endgaming (Pitsis et al., 2003) and mobilizing the project coalition (Winch, 2010) towards the desired end state.

A third line of enquiry is the return to the evaluative dimension of temporality once the protended act has been achieved. After the project is completed, narratives of project successes are developed as embodied, for example, in our sources for this vignette which share a common shaping narrative but offer very different delivery narratives (Ball, 2013; Smit, 2001) – indeed Ball's narrative is an explicit counter-narrative to Smit's. At this stage, project narratives become promotional in nature both for the supporting stakeholders and for the careers of the project team. Debates can also be intense around the success of the project organization in delivering and the evaluative narratives can be unstable over time. For instance, the evaluative narrative of Sydney Opera House project has changed from great planning disaster (Hall, 1982) to icon of Australian modernity (Murray, 2004) over the course of 20 years. More research on narratives of post-project evaluation is warranted.

The final line of enquiry is into the front end shaping of projects. Despite major contributions some 20 years ago (Flybjerg et al, 2003; Millar & Lessard, 2000), empirical research in this important area has not advanced significantly. Perhaps one reason is a lack of appropriate conceptual frameworks. Existing research on how nascent ante-narratives (Boje et al, 2016; Drevin & Dalcher, 2011; Vaara & Petersen, 2013) compete to become performative, how counter-narratives are marginalized or not, and how performative narratives change over time provides exemplars. Detailed longitudinal work using both ethnographic and archival methods could be used in order to identify the types of plots (Ricoeur, 1984) that generate performative narratives and those that, with hindsight, fail to perform. Our focus on performative project narratives in this paper has occluded the importance of critical counter-narratives that oppose all or part of the project narrative (Frandsen et al, 2016), and attention to these would also be welcome. If this tradition of narrative research were combined with that on temporal work, then rich data and analyses are possible. After all, the concept of temporal work was developed to understand the dynamics of project selection (Kaplan & Orlikowski, 2013), and that of framing contests to understand how nascent projects competed for managerial support (Kaplan, 2008).

Although this article is principally a theoretical contribution to project organizing research, we have used innovative empirical resources to support theory development. These are separate published accounts by the two principals on the project (Smit and Ball). These are a form of naturalistic data (Ninan, 2020) which have not before been used in project organizing research, so far as we are aware, except for Jacobsson and Hällgren (2016). In our view, this is a much underutilized empirical source, particularly for the study of megaprojects, where they offer a

more longitudinal perspective on the project and greater insights into project shaping. Similarly, the published reports of embedded journalists on projects can also provide significant insights. These sources have the advantage of easy access and providing insights into the lived experience of projects that would normally only be available through ethnographic research (e.g. van Marrewijk, 2015) and their relative ease offers greater potential for comparative analysis of cases. A further advantage is that the data source is available to all interested researchers for re-analysis; this lack of access is a major limitation of ethnographic and other case-based research. One of the disadvantages of these sources, however, could be that the author typically has a stake of some kind in the project, and often a position to defend, so the sources need to be read critically. This perhaps applies less to the embedded journalists, but they share with ethnographers the need to bow to the requirements of the organization being studied for continued access and the right to publish the findings. Further, data collection is not orientated towards answering particular research questions so they need to be analysed in a more grounded way as we have done in this article. On balance, these kinds of texts have the potential to develop new theoretical insights, as indeed, do fictional accounts (Bröchner, 2021) if used critically. Perhaps one approach might be to use the tools of textual analysis (Bakhtin, Ricœur) to analyse these naturalistic sources as narratives.

Theoretically, there are also some important implications of our argument which require consideration if further progress is to be made. The critique of the existing analysis of time in organization theory (Orlikowski & Yates, 2002) relies heavily on structuration theory (Giddens, 1984), as, indeed does much practice theory in organization studies more generally (Feldman & Orlikowski, 2011; Whittington, 2006). However, for those concerned with temporality in organizations, structuration theory has significant limitations. This is because structuration theory rejects (Giddens, 1979) the distinction (Saussure, 1959) between the diachronic and synchronic. The result is that its time-frame is entirely in the present, rather than the past or future. In structuration theory, agency and structure are so tightly bonded in their mutual instantiation in space/time that the possibility of structure and agency evolving through different temporal rhythms is occluded and “temporal relations between structure and agency logically cannot be examined” (Archer, 1993: 70). In other words, one cannot look further backwards (or forwards) when investigating structure than when investigating agency, nor vice versa. This, we suggest, is a crucial weakness of present conceptions of temporality in practice theory.

There are some possible ways forward. One is to develop the analysis of situated temporality (Hernes & Schultz, 2020; Vaagaasar et al. 2020) which proposes a framework for researching how actors think about the future while living in the present which draws on Emirbayer and Mische (1998) and practice theory derived from the work of Mead. A second is to explore the agency of narratives as independent actors in organizations (Cooren, 2004), which draws on actor-network theory. A third is to analyse the narrative interactions (Sergeeva & Winch, 2020) over time during, for instance, reaching the Final Investment Decision for a major project as co-evolutionary dynamics (Daniel & Daniel, 2019). Finally there is the research stream on critical discourse analysis (Fairclough, 2013; Vaara et al, 2010) which explores the power structures behind narratives and draws on a critical realist philosophy of science.

Conclusions

Our narrative perspective on temporal structuring in project organizing draws on Emirbayer and Mische's (1998) theory of agency and Orlikowski and Yates's (2002) theory of temporal structuring. It is combined with narrative theory to articulate a perspective which transcends the objective and subjective perspectives on temporality in project organizing research and proposes a narrative one. As Smit says, "no one has a monopoly on dreams, but only a rare few discover the alchemist's act of making them real" (Smit, 2002: 14). Understanding how dreams become true is, we submit, central to project organizing, and faith in the future created by that project is crucial part of that alchemy. This allows one to convince oneself as the basis for convincing others. Thus convincing oneself, convincing the team, and convincing stakeholders are types of temporal work central to project organizing. This conviction is, we suggest, generated through project narratives. Project narratives can be represented in textual, verbal and symbolic forms. The ways narratives are constructed, spoken about, represented in visual and symbolic forms, and how these become changed over time shape the ways we act upon them. The future is uncertain, yet by paying closer attention to the language we use, to the narratives we craft, sustain and share, process of narrating to the actions we take help us to create the future we desire.

We suggest, therefore that the narrative perspective on project organizing allows us to recapture the meaning of project as both noun and verb. In the systems paradigm, the objective perspective on time leads to an emphasis upon the project as noun – a temporary organization that delivers an output. In the actuality perspective, the subjective perspective leads more towards an emphasis is more upon the project as verb – a flow of activity creating a social process through time. Perhaps it is time to revive the use of the gerund *projecting* to capture the narrative perspective in project organizing. This both captures the essentially future orientation of project organizing and connects with its illustrious past because "about the year 1680 began the art and mystery of projecting to creep into the world" (Defoe, 1697: 18).

Appendix 1: Glossary: The Key Concepts of A Narrative Perspective	
Temporal structuring	The process of engagement with the world whereby actors shape and are shaped by temporal structures which are neither independent of human action (because shaped in action), nor fully determined by human actions (because shaping that action), thereby providing the context for the crafting of a project narrative.
Temporal work	The process by which tensions (implicit or explicit) among different understandings of the past, present, and future are negotiated between actors to craft a project narrative. Examples in project shaping include convincing oneself, convincing the team, and convincing stakeholders. An example in project delivery is endgaming.
Projectivity	The social process of narrating the future by projecting desirable future states or mitigating undesirable future states through future-perfect thinking.
Project narrative	The project narrative is a protention which motivates action in order to achieve a defined future state. This forms the dominant performative narrative articulated by the proponents of the project to motivate the commitment of stakeholders to the project during shaping, and the commitment of project team members and suppliers during the delivery of the project.
Protention	The cognitive process of looking towards the future. It is the opposite of retention, which is the cognitive process of drawing on past experience.
Action	Human activity that is orientated towards the future by protention. It is the opposite of behaviour which is human activity orientated towards the present and past by retention.
In-order-to	The motivation for action that is future-oriented. It is the opposite of the because motivation for behaviour that is past-oriented.
Convincing oneself	The cognitive temporal work of developing faith in the possibility of the project.
Convincing the team	The social temporal work of drawing potential team members and other collaborators into the faith.
Convincing stakeholders	The institutional temporal work of convincing resource holders to invest in the project.
Ante-narrative	A before-narrative, or one of a number of parallel narratives which are competing to become the dominant project narrative through temporal work.

Framing contests	The processes of arbitrating between competing ante-narratives to identify the project narrative that garners the support of resource-holders.
Counter-narrative	A narrative which attempts to counter the dominant project narrative, often articulated by stakeholders which are to some degree opposed to the project. Resolving the interactions between project narratives and their counter-narratives is also temporal work.
Storytelling	The social process of communicating and sharing stories about everyday experiences, values and orientations thereby generating identity.
Filling in	The delivery process of working towards the desired future state as the lived experience of projecting.
Future-making	The practices of planning and designing which are the basis of filling in.
Endgaming	The iterative temporal work of defining planning and learning cycles during project delivery.

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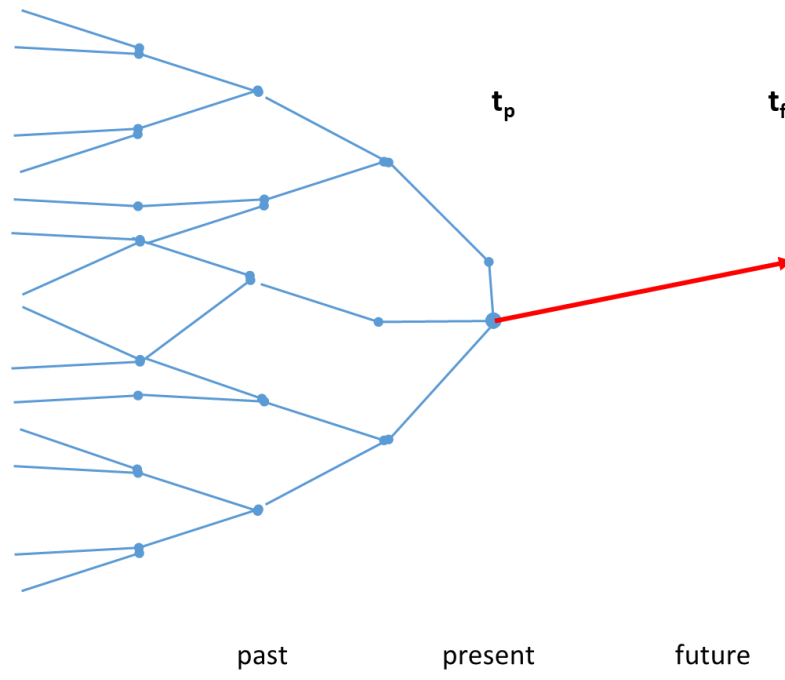


Figure 1

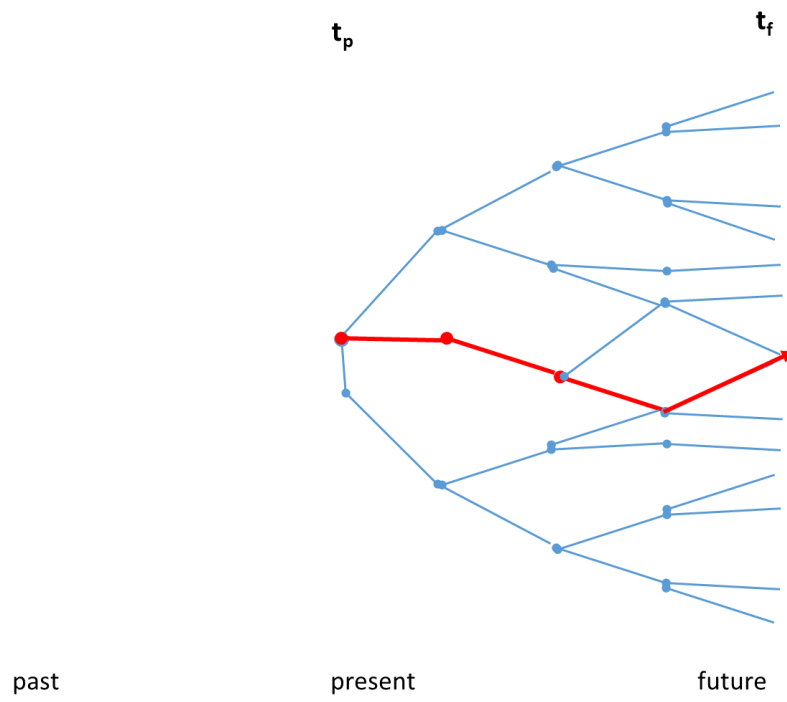


Figure 2

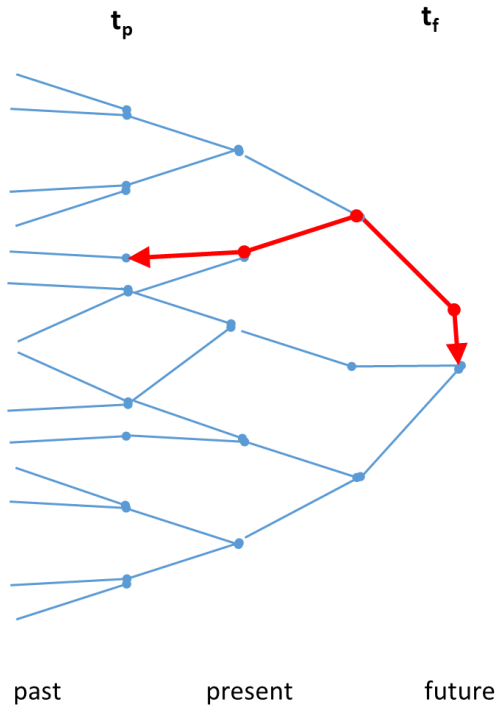


Figure 3

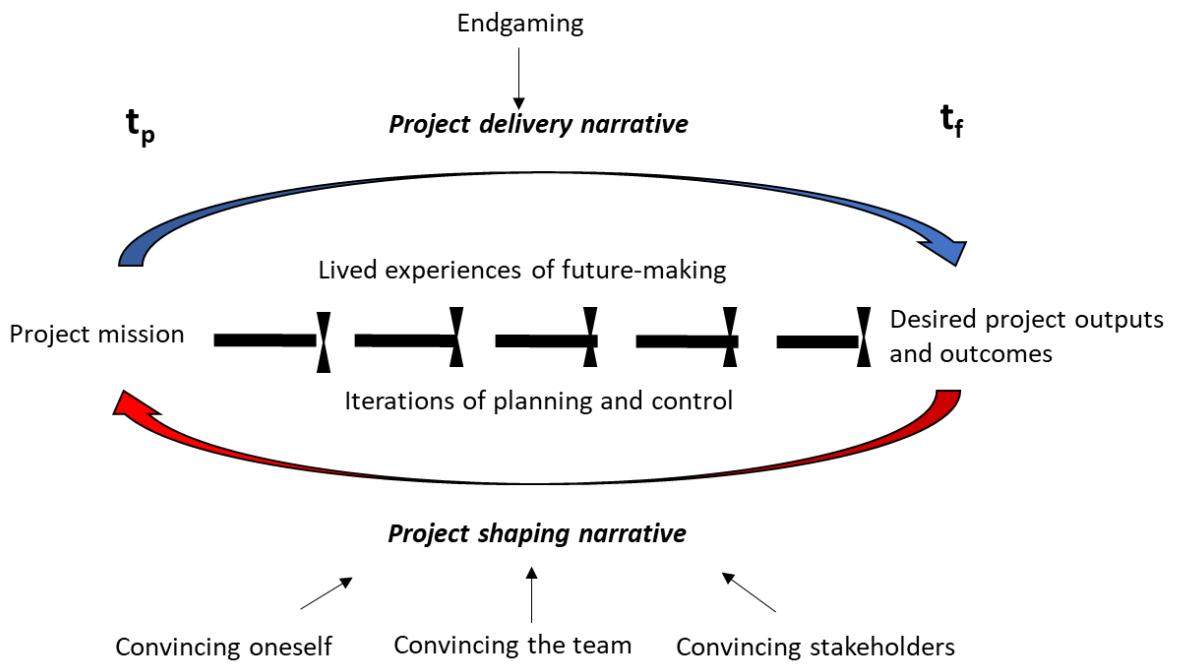


Figure 3