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# Temporary Organizations

Prevalence, Logic and Effectiveness

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# 4 Time matters: the impact of ‘temporariness’ on the functioning and performance of organizations

**René M. Bakker and  
Martyna Janowicz-Panjaitan**

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Live neither in the past nor in the future, but let each day’s work absorb your entire energies, and satisfy your widest ambition.

– Sir William Osler, to his students

## INTRODUCTION

In increasing numbers, firms are setting up temporary organizations (TOs), to reach strategic and operational goals and to keep up with the fast pace of change in the technological and market environment (see Brady and Davies, 2004). Examples of these inter- or intra-organizational TOs may include sports event organizers, trial juries, cockpit crews, movie sets, construction projects and theatre groups among others (Bechky, 2006; Meyerson *et al.*, 1996; Miles, 1964).

TOs<sup>1</sup> have been variously defined as ‘a set of diversely skilled people working together on a complex task over a limited time period’ (Goodman and Goodman, 1976, p. 494), as systems ‘limited in duration and membership, in which people come together, interact, create something, and then disband’ (Morley and Silver, 1977, p. 59) and as ‘structures of limited duration that operate within and between permanent organizations’ (Keith, 1978, p. 195). TOs are often projected as a new and promising form for economic action (Grabher, 2002; Sydow *et al.*, 2004) and as ideal loci of learning and innovation (Brady and Davies, 2004; Ibert, 2004). Moreover, TOs have become commonplace in many and diverse industries (Chapter 2, this volume) and are a focus of a nascent field of scientific study.

In order for TOs to be considered a truly unique organizational form warranting systematic scientific inquiry, there needs to be an element

exclusive to TOs that distinguishes them from other organizational forms. Based on a review of extant literature, Janowicz-Panjaitan, Bakker and Kenis (Chapter 2, this volume), identified temporariness as *the* crucial, unique characteristic of TOs. They defined temporariness as the finite time limit on the existence of TOs (for instance in the form of a deadline), which has been defined at, or prior to, the TO's formation. They concluded that the implications of temporariness for a TO's functioning, performance and link to the wider organizational context are currently lacking in the literature. There is thus room for theory development linking elements of time to TOs. This theory development should move beyond the discussion of temporal phases in TOs and beyond normative counsel on how to best pace projects.

It is for these reasons that we start from the premise that to truly understand temporary organizations, one needs to consider the role of temporariness and its effects. Consequently, our goal in this chapter is twofold. First, we aim to explore the phenomenon of time and temporariness in TOs in depth. Second, we will formulate propositions concerning the effect of temporariness versus non-temporariness on TO functioning and outcomes. In so doing, this chapter echoes the recent call for bestowing upon time and temporality a more prominent place in organization studies (see Bluedorn and Denhardt, 1988; George and Jones, 2000) and in research on TOs in particular (Chapter 2, this volume).

In this chapter we propose temporariness to be a temporal element which has a strong impact on the functioning and performance of organizations. That time-limiting effects in organizations might be intriguing can be witnessed in research by Sutton (1987) on 'dying organizations', organizations that announce that they will cease to exist within a limited time. Sutton demonstrated that, contrary to management's predictions, the effort members invested in their work, after having been made aware of the impending termination of the organization, remained constant in some instances and even increased in many others. *How* temporariness impacts organizations is the focus of this chapter.

## TIME IN ORGANIZATIONS

Numerous examples illustrate the profound impact temporal matters have on our (organizational) lives. The annual spring shift to daylight saving time has been shown to result in an average increase in traffic accidents of approximately 8 per cent (Grekin and Coren, 1996), and the nuclear catastrophe at Chernobyl and the Exxon Valdez oil spill have been linked to, amongst others, disrupted circadian rhythms (Mitler *et al.*, 1988). A

particularly salient example of how temporal matters can impact our lives is quoted in Labianca *et al.* (2005, p. 677) and concerns scientists working on Mars Rovers at the Jet Propulsion Lab, who work Martian days, which are 37 minutes longer than earth days. Although a 37 minute difference in day length may seem a minor adjustment, Jet Propulsion Lab scientists suffered from severe jetlag-like complaints within just days of working on the project, which eventually necessitated a change in the programming of the scientists' working week.

In Western culture, clock time has come to be the dominant perspective on time. This dominant view of time (also referred to as 'natural', 'objective', 'even' or 'chronological' time) is characterized by the assumption that time is independent from mankind and relates to 'Newtonian assumptions of time as abstract, absolute, unitary, invariant, linear, mechanical, and quantitative' (Orlikowski and Yates, 2002, p. 685). This perspective of time is now accepted without question and has become so fully institutionalized in contemporary Western society that alternative perspectives are hard to recognize and grasp (see Bluedorn and Denhardt, 1988). This perspective on time should neither be taken for granted, nor obscure other, more subjective, points of view. According to Mainemelis (2001), social scientists agree that time as an external dimension, independent of humans, does not exist. All of us have probably felt the sensation of time passing slowly at some point – when waiting for a delayed flight for example – or, conversely, of experiencing time 'fly' when having fun. Flaherty (1987, p. 313) captures this subjectivity of time nicely by describing how clock time can be viewed as an externalization of the inner experience that James (1892) referred to as the intra-subjective 'stream of consciousness':

As you read these words, reflect on the following: that in so doing, you are marking time. You need not consult your watch in order to accomplish this feat; its movements are merely externalizations of that kaleidoscopic stream of experience that you distil into an image of duration.

Bergson (1910) elucidated that stimuli from the environment are processed by our consciousness, linked to one another and experienced as inner duration, or *durée*. After our consciousness has created *durée*, it is subsequently projected back to external space:

Bergson saw this process as a kind of *cinematographic* operation: consciousness takes several snapshots of reality: it keeps a record of them by means of inner duration; it arranges them successively side by side to form a reel; and it projects the reel back to space 'in high speed', creating the illusion of a uniform linear movement that progresses *through* an invisible medium of 'time' . . . . Time, however, only exists in the apparatus (Mainemelis, 2001, p. 550, emphasis original).

Therefore, it should be clear that our clock does not produce time, we do.

Besides being intra-subjective, time also has an inter-subjective capacity. Durkheim (1912) proposed that our individual temporal experiences are shaped by collective rhythms in society. In fact, some degree of consensus on time is needed to maintain social order<sup>2</sup> (Flaherty, 1987). The experience of time can become inter-subjective through socialization, as demonstrated by several studies, including Bluedorn and Denhardt (1988), Hall and Hall (1990) and Kluckhohn (1953), which show how time perspectives tend to converge within, but diverge across cultures. As examples, consider the difficulties many Northern Europeans experience doing business in Africa and Southern Spain when faced with the different interpretations of deadlines and time urgency inherent to 'Africa time', or the 'mañana' culture sometimes ascribed to Southern Spain.

For the purposes of our discussion, we will treat time as an abstract notion with both intra-subjective capacity – varying in and between individuals – and an inter-subjective capacity; socialization in groups forms and constrains our time perspectives (resulting in variation between groups and cultures). These notions of intra- and inter-subjective capacities form the basis for our discussion of time in organizations.

A number of researchers have been calling for a more prominent place for the impact of time in organization studies (George and Jones, 2000; Orlikowski and Yates, 2002). Their rationale is that although time is a major dimension of social organization (Zerubavel, 1979) and 'as fundamental a topic as any that exists in human affairs' (Bluedorn and Denhardt, 1988, p. 316), it has yielded relatively few systematic research endeavors in organization and management studies, despite some notable exceptions (Bluedorn and Denhardt, 1988; Butler, 1995; Gersick, 1988, 1989; Hassard, 1991, 1996; Labianca *et al.*, 2005; McGrath and Rotchford, 1983; Perlow, 1999; Zerubavel, 1979). Moreover, studies tend to incorporate the role of time as a factor only marginally, rather than focus on it as key variable (Ancona and Chong, 1996).

Because contemporary Western organizations are embedded in a society in which an objective clock time perspective prevails, it is no surprise that, for organizations, clock time is the dominant time perspective on which they operate and the dominant view from which they are studied (George and Jones, 2000). Just as the dominant time perspective in organizations is a consequence of their embeddedness in society, 'joining a formal work organization represents the final stage in conditioning the individual to an "organized" time consciousness' (Hassard, 1996, p. 366). Rather than mere recipients of a clock time preoccupied society, organizations can be seen as producing and reinforcing its prevalence. It so happens that clock time holds advantages for production systems: it both standardizes

a common operating framework for synchronizing activities, and commodifies labor as a factor of production (Hassard, 1989), as epitomized in Frederick Taylor's time and motion studies in 1911 (Taylor, 1911 [1967]).

There has not always been an obsession with clock time. In traditional economies, work systems were task oriented (Hassard, 1989). With the advent of industrialization however, the focus of organizations shifted from man to machine and efficiency. Mass production and speed became dominant and the clock became the major instrument for coordination and control, giving rise to metaphors such as 'time is money, time is a limited resource, and time is a valuable commodity' (McGrath and Rotchford, 1983, p. 66). Ever since this transformation, modern economies, unlike traditional ones, have been time oriented, as reflected, among others, in 9 to 5 working days, 15 minute coffee breaks, 'overtime' and two-day weekends.

Although the prevalence of clock time appears undeniable, a number of writers have suggested that not all organizations experience time in a similar fashion. For instance, the 'plurality of social times', as advocated by Hassard (1989), distinguishes between the micro-social times of groups and communities and the macro-social times of systems and institutions, because, although society runs on clock time, 'groups and organizations may . . . have different collective experiences of time' (George and Jones, 2000, p. 660). In another study, Clark (1985) suggested that time is idiosyncratic to organizations, meaning that each organization has its own highly local event time, whether for the organization as a whole or merely for its sub-parts. Similarly, Hassard (1989) has noted the difference between management's obsession with linear clock time and calculations of duration on the one hand, and the work floor using their knowledge of event cycles to produce time, on the other hand. Zerubavel (1979) has shown how the temporal structure of 'private' and 'public' time differs between doctors and nurses in hospitals. Finally, Lee and Liebenau (1999) report on findings that indicate that sub-parts of organizations, professional groups and organizations can differ in the time parameters of their organizational culture.

The above examples indicate the existence of what Ancona *et al.* (2001) have labeled 'temporal zones', both within and between organizations. In essence, a temporal zone can be seen as a sub-part of an organization that is relatively homogeneous internally, while distinct from its environment with respect to temporal parameters such as time horizons, time pressure, time perspectives, temporal norms, pace, rhythm, cycle, scheduling, pressure, flexibility, scarcity, urgency and/or autonomy (Ancona *et al.*, 2001).

A perfect example of a temporal zone is provided by Roy (1960). In this study Roy showed how a different interpretation of time emerged at the



level of groups of factory workers. In order to make it through the long days of tedious factory work, the group invented its own event-based system in which they created concepts such as 'peach time', 'banana time', 'window time', 'pick up time' and 'fish time', each accompanied by specific role-playing interactions to punctuate the infinitely stretching work day. Instead of 'the day being endless *durée* it was regulated in a series of social activities' (Hassard, 1996, p. 333) limiting the experienced time horizons.

Temporal zones may emerge spontaneously, as was the case with 'banana time' in Roy's study (1960), or be brought into existence intentionally. With respect to the latter, Ancona and colleagues (2001) proposed that temporal zones in organizations are designed to achieve 'temporal fit' with specific environments or task demands, 'grouping together activities sharing the same temporal parameters, such as pace, time horizon and cycle' (Ancona *et al.*, 2001, p. 525) while differentiated with respect to temporal parameters in their environment.

That such differentiation in temporal parameters may emerge with regard to teams or work groups, such as temporary organizations, is supported in a number of studies. For instance, Labianca *et al.* (2005, p. 678) argue, that '[w]hen a team comes into existence, it establishes a temporal schema that differentiates its members' understanding and experience of time and deadlines from that of others'. This is in line with Ancona and Chong's contention (1996, p. 259) that 'in an organization there might be a dominant temporal cycle, . . . and numerous other cycles such as team cycles'. This theory is supported by research that shows that teams tend to pace themselves in a unique way (Gersick, 1988, 1989). This finding has important implications for TOs, and Bluedorn and Denhardt (1988, p. 304) build upon it by making it explicit that there are 'temporal rhythms among various classes or groups within organizations', and that 'small groups, classes or organizations may be thought of as having temporal boundaries that distinguish them from others' (Bluedorn and Denhardt, 1988, p. 307). This is clearly the case for temporary groups.

As proposed in the introduction, we consider the temporariness of TOs to be their defining characteristic. Temporariness and the unique approach to time and timing that it implies render TOs temporally distinct from non-temporary organizations. Several authors support this contention. The concept of atemporality, as recently applied to TOs by Janowicz-Panjaitan, Kenis and Vermeulen (Chapter 5, this volume), implies that temporal distinctiveness arises in TOs from their being sheltered from the past, present and future. This is based on the notion that, by virtue of their *ex ante* specified ending point, TOs have a 'right-bracketed' time frame (Lundin and Söderholm, 1995), and therefore do not anticipate a future. In addition, TOs often have a clearly fixed starting point, and in the

extreme, are made up of people who have never worked together before (Goodman and Goodman, 1976). This implies that TOs, more often than not are also 'left-bracketed', lacking a common history. This signifies that 'a temporary organization is decoupled from other past, contemporary, or even future sequences of activities' (Lundin and Söderholm, 1995, p. 446). Miles (1964) refers to this shelter as creating a 'temporal bubble', which distinguishes the TO from its permanent environment, delineating a temporal zone. Such temporal zones may have similarities to 'liminal spaces', which are in this case, paraphrasing Turner (1977), social spaces betwixt and between positions arrayed by ongoing organizations (see also Tempest and Starkey, 2004). From a view of TOs as temporal zones, we will argue that TO members operating in such a liminal space will develop specific ways of functioning, with consequences for the outcomes of the TO as a whole.

## TEMPORARINESS: IMPLICATIONS FOR THE FUNCTIONING OF INDIVIDUAL MEMBERS OF TOS

Thus far, we have treated temporariness as an organization-level variable. In fact, a number of different levels of time can be distinguished, including an individual and an organizational level (Das, 1993) among others. These different levels are not independent of each other; rather, they are likely to interact: inter-subjective, aggregated time levels shape and constrain individual, subjective time orientations. In fact, as Das (1993) notes, the more interesting phenomena occur at the intersection of the different temporal levels.

The role of the individual, while taking center stage in management and organization studies, is often neglected when studying temporal matters (Das, 1993). In this section, we will look at the implications of temporariness for individual members, and explore the impact that these micro processes have on the relationship between temporariness and performance. Based on Coleman (1990), we thus attempt to understand the macro relationship between temporariness and performance by focusing on micro behavior: the behavior of TO members in an organization that is temporary (see Figure 4.1). Specifically, we propose that three phenomena form the micro foundation for the relation between the temporariness of TOs and their performance. In TOs, compared to members of non-temporary organizations, members are likely to focus more on the present than on the past and future (P1); members are more likely to experience timelessness (P2); and members will entrain less to external temporal cycles in the environment (P3). We argue that by considering these three micro

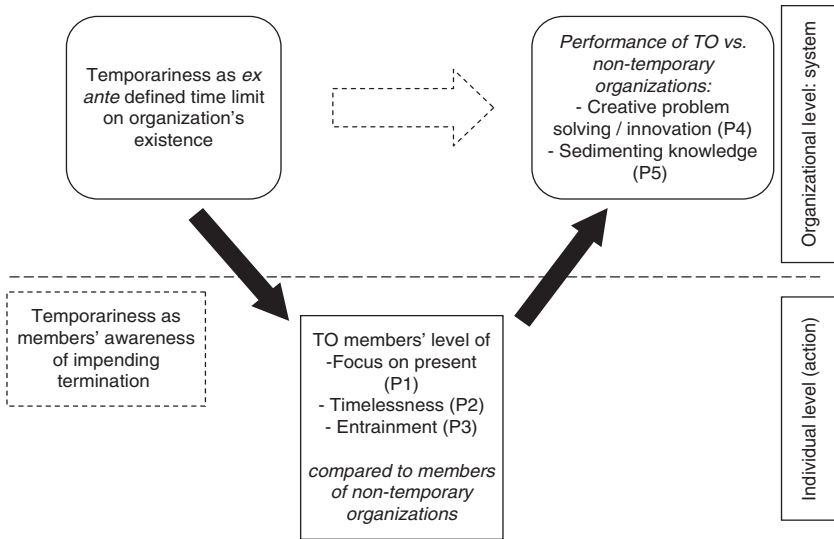


Figure 4.1 Effect of temporariness on organizational performance: micro foundations

mechanisms, we can infer the influence that temporariness is likely to have on a TO's performance. Specifically, we propose that temporariness is likely to have a positive effect on creative problem solving (P4) and a negative effect on knowledge sedimentation (P5). The performance effects will be discussed in detail in the following section.

The central argument of this section on the implications of temporariness for the functioning of individual TO members is that a temporal zone perspective on TOs allows us to view them as distinct forms, where members operate in a protective bubble, guarded from the shadow of the future and the burdens of the past (Miles, 1964).<sup>3</sup> This bubble has a twofold effect on TO members. On the one hand, members are 'apart' or distinct from the rest of the organization(s) while, on the other hand, they are 'together', and, therefore, collectively share the temporary character of the TO (Miles, 1964). This twofold effect results in the creation of group boundaries, as labeled in Social Identity Theory (see Taifel and Turner, 1979). Viewing TOs as temporal zones, we propose that distinct features are likely to arise in them which have important implications for their functioning (see Bechky, 2006). In fact, past research has shown that unique practices (Scarbrough *et al.*, 2004) and distinctive norms (Lundin and Söderholm, 1995) can indeed emerge in TOs.

We build on an understanding of temporariness as an organizational-

level variable, which leads to an individual-level awareness of impending termination among TO members (Chapter 2, this volume). Because of this awareness, we believe that members in TOs and those in non-temporary organizations perceive and deal with the past, the present and the future differently, or what Twenge *et al.* (2003, p. 410–411) refer to as 'time orientation'. Specifically, we argue that in temporary organizations, a strong orientation toward the present is likely to emerge among its members.

The subjectivity and malleability of its members' time orientation is an important consideration in the study of time orientation in temporary organizations. When focusing on people's time orientation, it should be noted that it is both subjective and malleable (Ebert and Prelec, 2007). Moreover, 'future and past events have an impact on present behavior *to the extent that they are actually present on the cognitive level of behavioural functioning*' (Nuttin, 1985, p. 54, emphasis added). We posit that TO members' awareness that termination of the TO is looming, after which time essentially ends for the TO as well as for the individual's membership in the group, is likely to diminish the effect of future anticipations on TO members' current behavior. It is as if from the perspective of a TO member, both toward the task and his/her fellow TO members, there is no shared future beyond the TO's termination point. Or as Lundin *et al.* (2002, p. 136) put it, in TOs 'the future is bounded by the project's end'. One might suppose that if there is no, or very little expectancy of future collaboration, there may be little to no importance placed on the consequences of present actions for the future, simply because the TO is unlikely to *be* in the future. Moreover, a long-term vision and long-range planning of activities seem counterintuitive in a temporary setting. In addition, in a temporary context in which members work on a clearly defined task that must be accomplished within a limited time, there is little opportunity for the postponement of activities. Taken together, these circumstances render it likely for members of a temporary group to focus less on the distant future and more on the present.

For reasons similar to their decoupling from the future, TOs are often decoupled from the past, because TOs have a clearly fixed starting point and are often composed of members who have rarely or never worked together before (Goodman and Goodman, 1976). Therefore, TO members most often lack a common history. In this 'left-bracketing' model, the lack of common history prior to the starting point of the TO implies that its members lack a common experience and the opportunity to have developed trust, but equally do not have to carry any 'burdens of the past' (Miles, 1964). In fact, the time brackets imposed by the TO's temporariness rid the TO members of a 'shadow' of a common past and future (Miles, 1964). Temporary systems, therefore, likely create a narrowed

time perspective among their members: 'the person lives more in the psychological present, coping with immediate demands and simultaneously forgetting the past and neglecting plans for the future' (Miles, 1964, p. 457–458). This phenomenon of being 'concerned . . . with the immediate present and the proximate future' is the essence of a present-time orientation, also referred to as 'closed time' (Ancona *et al.*, 2001, p. 524).

In summary, by creating a distinct temporal zone or bubble, TO members are freed from the expectancy of a common future as well as from the weight of a common past. Therefore, it follows that:

*Proposition 1: All things being equal, members of temporary organizations focus more on the present (rather than on the past or future) as compared to members of non-temporary organizations.*

A stronger orientation to the present, rather than the past or future, can be linked to a stronger focus on the depth of experience rather than its sequence. Mainemelis (2001) suggests that there are two dimensions to the experience of time – its depth and its succession – and that a trade-off exists between the two. In other words, because of limited attention resources, 'the more one's consciousness focuses on succession, the less attention it invests in the depth of the here-and-now experience, and vice versa' (Mainemelis, 2001, p. 551). The succession of time relates to its stream from the past to the future. In ordinary settings, members of organizations link each unfolding moment to the past and the future, creating a sequence. In temporary settings, although the basic mechanism is likely to be similar, for TO members the past and future are limited to the temporal brackets created by the beginning and termination point of the TO. Therefore, members are likely to have less opportunity, and perhaps less inclination to sequence or link current events to those preceding and following the existence of the TO. This trade-off between depth and succession of duration, allows greater depth of experience. To counter the risk of sounding esoteric, consider how not worrying about the long-term future of one's project frees up 'brain space' to focus fully on the present.

The combination of greater depth of current experience, less attention to sequencing and matching one's sense of duration to clock time is likely to result in an experience of timelessness. Mainemelis (2001, p. 548) defined timelessness as 'the experience of transcending time and one's self by becoming immersed in a captivating present-moment activity'. The total engagement in a task that timelessness implies bears close resemblance to the concept of *flow* as developed by Csikszentmihalyi (1975) and Csikszentmihalyi and LeFevre (1989). In experiencing timelessness, a person becomes totally immersed in the task at hand, a state which

'mobilizes one's entire attention resources and physical energy toward only one stimulus, which is the present-moment activity', accompanied by a temporary loss of self-consciousness and sense of time (Goleman, 1997 in Mainemelis, 2001, p. 556). As Mainemelis (2001) notes, one prominent way in which timelessness thus manifests itself is by individuals experiencing distorted perceptions of duration. Prior research has demonstrated that under various circumstances, a given period of time may seem to pass faster or slower (Flaherty, 1987). The underlying argument for this phenomenon is found in cognitive psychological models such as the cognitive timer model (Glicksohn, 2001; Zakay, 1989). The logic of this model is that attention and arousal are codependent (Kahneman, 1973). As such, if one activity requires more extensive attention, less attention is available for other tasks, both tapping into the same pool of attentional resources (Glicksohn, 2001). Individuals constantly – more-or-less consciously – try to match their produced sense of duration to a clock, by virtue of a cognitive timer, and thus withdraw from the attention pool. As a consequence, when more attention needs to be invested in non-temporal cognitive processing – for instance when an individual is engaged in a stimulating task – less attention is available for the cognitive timer, resulting in distorted duration perceptions (Glicksohn, 2001).

This trade-off between attention devoted to cognitive timing and attention committed to stimulating tasks is similar to the trade-off between the depth and succession dimensions of time. When focusing on an activity occurring in the present moment (proposition 1), less attention is granted to the succession of time as recorded by the cognitive timer, and more attention is put into the depth of the experience, likely resulting in distorted perceptions of duration<sup>4</sup> and the experience of timelessness. Moreover, timelessness is likely to occur when there is 'a psychological space in which one can become immersed in the present-moment activity without worrying about future consequences' (Mainemelis, 2001, p. 555). By virtue of their temporariness, TOs draw members into the present rather than into the past or future. In essence then, the past and future only 'distract one's attention from the depth of the here-and-now direct experience' (Mainemelis, 2001, p. 559), limiting the opportunity for the experience of timelessness. In other words, when not taking into account the past and future, members focus on the depth of the present moment, and as 'other concerns fade . . . the participant often reports that he is working at the heights of his powers' (Miles, 1964, p. 463).<sup>5</sup> It follows that:

*Proposition 2: All things being equal, members of temporary organizations are more likely to experience episodes of timelessness as compared to members of non-temporary organizations.*

*Entrainment* has been defined as ‘the adjustment of the pace or cycle of one activity to match or synchronize with that of another’ (Ancona and Chong, 1996, p. 251). Entrainment implies that while groups or organizations have their own endogenous temporal cycles, these cycles are captured by dominant, external ‘pacers’. Working together, these captured cycles ‘establish an entrained rhythm that then “pulls” many other cycles into synchrony’ (Ancona and Chong, 1996, p. 253), increasing these cycles’ dominance. Just like any other temporal zone, TOs are entrained to the pace and cycles of their environment. However, there are reasons why TO members entrain relatively less with their environment than members of non-temporary organizations.

Ancona and Chong (1996) argued that entrainment depends on the presence of external cues in the environment as well as the system’s openness to those external cues. The temporariness of a system is likely to influence the system’s openness to those cues. Chong (1995) found that those teams that were ‘buffered from their external environment paced themselves through internal mechanisms and the task at hand’, while ‘teams that were not buffered from the external environment . . . exhibited entrainment to external rhythms’ (Ancona and Chong, 1996, p. 264). According to them (p. 270), organization members, groups and organizations ‘that are more open to their environment will be more likely to entrain to that environment than those with impermeable boundaries’ that buffer against entrainment.

We propose that the protective brackets of TOs that shelter them from the past and future are likely to act as buffers and limit TO members’ concern with external cycles that stretch beyond the TO’s existence. In fact, some scholars have observed that members of TOs tend to display unique pacing procedures (Gersick, 1988; Miles, 1964) distinct from those observed in the permanent contexts that envelop them. Examples of this include Gersick’s model (1988), which shows that teams with explicit deadlines ‘pace themselves to temporal milestones’ (Ancona and Chong, 1996, p. 264), suggesting that a group’s time consciousness can strongly differ from that of its context.

TO members’ present-time orientation thus makes them less prone to the temporal parameters prevalent in their environment. This implies that due to their awareness of impending termination and the strong focus on the immediate activity that it tends to elicit, members of TOs are likely to pay relatively less attention to external temporal cues. Therefore, the extent of their entrainment is likely to be lower. Whereas non-temporary organizations tend to be strongly entrained to dominant cycles (Ancona and Chong, 1996), members of TOs are unlikely to devote much attention to cycles extending beyond the point of their termination. The same argument could be made with respect to the TO’s past. Thus, all things being

equal, by virtue of their temporariness, cycles outside the TO members' system, such as culturally prevalent clock time milestones, are likely to have less impact on the TO's endogenous cycles, such as members' pace of work or setting intermediate deadlines, than is the case in non-temporary organizations. Therefore, it follows that:

*Proposition 3: All things being equal, members of temporary organizations are likely to be less entrained to cycles in the environment as compared to members of non-temporary organizations.*

## TEMPORARINESS: IMPLICATIONS FOR THE PERFORMANCE OF TOS

By applying propositions 1 through 3, we will show that the ways in which individuals function in a TO can affect the performance of the whole organization. We begin this discussion with the assumption that the individual-level processes described above aggregate to group-level outcomes (see Figure 4.1). More specifically, we argue that due to temporary organization members' stronger focus on the present, higher likelihood of experiencing timelessness and relatively low level of entrainment, TOs can produce more beneficial outcomes than non-temporary organizations; specifically, increased output of creative solutions, a higher innovative output and superior knowledge creation. At the same time, however, temporariness may also make it more difficult for a TO to sediment knowledge into the wider organizational context than is the case in non-temporary organizations.

### **Creative Solutions, Innovation and Knowledge Creation**

Compared to non-temporary organizations, TOs provide a context in which creativity, innovation and knowledge creation can emerge more readily. First, creativity, innovation and knowledge creation in TOs are likely to be boosted by a present-time orientation. Increased focus on the present is an outcome of limited attention resources; the less attention one needs to invest in the succession of events and linking them to the past and future, the more deeply one can focus on the task at hand (Mainemelis, 2001). As an example of this outcome, Labianca *et al.* (2005) found that 'atypical' deadlines, meaning deadlines that require more cognitive processing because of an awkward start and end time – such as 4:07 rather than 4:00 – result in lower performance on tasks. Labianca and colleagues explained this finding by arguing that the cognitive processing involved in atypical deadlines constitutes a cognitive distraction from the task to be



completed. A present-time orientation is thus likely to result in a surplus of cognitive attention available for the task at hand.

A second reason why TOs provide a context for creativity, innovation and knowledge creation was suggested by Mainemelis (2001, p. 548): ‘scholars . . . have suggested over the years that the timeless intensity of the present moment is a gateway to creativity and joy’. More specifically, timelessness suspends two factors that are detrimental for the generation of novel and useful ideas: fear of failure and fear of negative judgment:

What usually kills or blocks one’s creativity is lack of courage to explore novel or countercultural ideas, paralyzing anxiety about one’s performance, and premature rejection of one’s insights as inadequate or not worthy of further elaboration. The loss of self-consciousness . . . prevents the arousal of such fears and judgments and facilitates the playful and imaginative engagement in the task (Mainemelis, 2001, p. 559).

In 1964 Miles (p. 455) added to this belief when he suggested that the temporariness of TOs also directly alleviates the fear of experimenting.

The penalties for making mistakes are reduced. Since life in the temporary system ‘is not for keeps’ the participant ordinarily feels freer to experiment, in the knowledge that other members of the system will not be around later to punish his acts, should his experimentation threaten them in some way.

This statement suggests that by virtue of the timelessness experience, temporariness, both directly and indirectly, lessens the creativity hampering fears of failure and negative judgment among TO members, leading to increased creativity and knowledge creation.

Finally, besides the positive consequences regarding the provision of order and coordination, entrainment to external pacers can have negative implications as well. One negative implication is that entrainment may hamper creativity (Ancona and Chong, 1996, p. 278). When all organizational parts or all partnering organizations are dominated by one pacer as a consequence of entrainment, their actions can become artificially unified. This could keep them from functioning in a manner that temporally ‘fits’ the specific task and leads to optimal results. Under conditions of entrainment, alternative temporal scenarios are suppressed because the entire organization is wrenched into the same temporal cycle. Moreover, since entrainment reflects repeated patterns, it emphasizes routine over innovation (Ancona and Chong, 1996). The effect of entrainment, creating temporal order and unity through repeating cycles and rhythms, is likely to lessen ‘the probability of searching for, and finding, creative solutions and new modes of operation’ (Ancona and Chong, 1996, p. 278). As we argued

in the previous section, because TOs are likely to be less entrained to external pacers, they are likely to create the temporal space in which creativity and innovation can flourish. Based on these assumptions, by virtue of their greater present-time orientation, higher probability of timelessness and lower entrainment, we argue that all things being equal, temporariness of TOs is likely to produce higher levels of creativity and innovation compared to non-temporary organizations. Consequently, we propose that:

*Proposition 4: All things being equal, temporary organizations are better able to develop creative solutions and create innovative output as compared to non-temporary organizations.*

### **Knowledge Sedimentation in the Non-Temporary Context**

The same characteristics that render TOs appropriate vehicles for unleashing creativity, innovation and knowledge creation might have negative consequences for sedimenting knowledge in the wider context. Prior research has recognized the problems involved in sedimenting knowledge from organizational forms with inherently limited duration. Therefore, the challenge is to sediment knowledge in a wider organizational context before the TO is terminated, before its members are designated to a different task (Grabher, 2004) or return to their parent organizations. From this perspective, the role of the TO in sedimenting knowledge is just as crucial as that of the parent organization's. Scarbrough *et al.* (2004) have demonstrated how knowledge sedimentation is hindered by unique practices likely to arise in TOs. One example is learning boundaries, which are a result of practices being bound to specific projects. Moreover, creation and sedimentation of knowledge appear to hinge on different logics, which lead to a trade-off between creating and maintaining knowledge (Grabher, 2004; Scarbrough *et al.*, 2004). We argue below why TOs constitute a form of organizing especially vulnerable to knowledge dispersion and how their temporariness and the unique temporal phenomena it evokes, contribute to this vulnerability.

Sedimentation is related to the preservation of knowledge for use after the TO ceases to exist. As we have argued, long-term planning is contrary to the very character of TOs. Activities or goals that extend beyond the termination point of the TO, such as knowledge sedimentation, are thus likely to be of low relevance for TO members. Considering the TO members' focus on the present, sedimenting knowledge outside the TO's boundaries for future use is unlikely to be of immediate concern. Therefore, the present-time orientation that TOs are likely to promote renders the issues of knowledge sedimentation less relevant to TO members than for the members of non-temporary organizations.

Similarly, we have argued that the experience of timelessness derived from the total immersion in a captivating present-time activity (Mainemelis, 2001, p. 548), is more likely to be experienced in a temporary setting. In the experience of timelessness, one's entire attention and energy is directed toward the singular activity in which one is engaged, rendering the issue of knowledge sedimentation secondary. Thus, given the importance of both timelessness and the focus on the present in TOs, little consideration is likely to be given to other distracting tasks, such as the codification of knowledge for sedimentation. To the present-time focus of members, as well as timelessness, we include a third impediment to knowledge sedimentation in TOs – the low level of entrainment to external cycles that TOs are likely to exhibit. Lower entrainment implies that the TO operates according to cycles that are distinct from those in its environment, and the TO is therefore likely to be 'out of sync' with that environment. One of the frequently cited tools for assuring knowledge sedimentation is to embed the TO in non-temporary structures (Engwall, 2003; Grabher, 2004; Scarbrough *et al.*, 2004). However, lower levels of entrainment mean they will be less embedded in non-temporary structures, reducing the likelihood of successful knowledge sedimentation. Ancona *et al.* (2001, p. 525) point out that integration and coordination across temporal zones that are 'differentiated on the basis of conceptions of time and the way actors relate to time', are highly prone to conflict. This conflict, in turn, can inhibit interactions between the temporal zones and thus the successful sedimentation of knowledge (Ancona *et al.*, 2001). In short, the positive effects of a present-time orientation, episodes of timelessness and lower levels of entrainment on creative problem solving, need to be weighed against the negative consequences for sedimenting knowledge for the TO as a whole. In light of the above, our final proposition states:

*Proposition 5: All things being equal, temporary organizations are less able to successfully sediment knowledge in the wider context as compared to non-temporary organizations.*

## CONCLUSIONS

In this chapter, we have developed a temporal perspective on TOs inspired by the unique role of time for this particular organizational form (Lundin and Söderholm, 1995). By proposing a temporal perspective on TOs and by exploring its possible implications for their functioning at the level of the individual and performance at the organizational level, we have contended that time matters greatly for understanding this unique form of organization.

With our analysis we have attempted to contribute to a deeper understanding of TOs by emphasizing their temporal dimension, *temporariness*, which had been called for in prior research (Chapter 2, this volume). Studying this defining attribute of TOs will, in our view, help to legitimize the field of TO research and place it more solidly in the mainstream of organization studies. Also, having begun to unpack the implications of temporariness for the functioning and outcomes of TOs, we have developed a number of propositions which will hopefully inspire future research.

In a broader context, this research furthers the idea that organizations should be viewed through a temporal lens, hopefully leading to more research on the impact of time on organizations, which remains understudied. In particular, we call for research on the temporal design of organizations. We could imagine an organization made up of consciously created temporal zones, where the differentiating factors are the temporal parameters rather than a specific product or service, as is the case in divisions or departments. Such an organization could be thought of as having fast-paced, short-cycled zones entrained to a rapidly changing environment and dealing with short-term goals and shorttime horizons. These zones could then be balanced by stable, slower-paced, long-cycled zones with administrative duties, entrained to the fiscal year or seasonal cycles (see Ancona *et al.*, 2001). As a complementary third type of temporal zone, TOs could be set up which, as was the topic of the present discussion, are apt vehicles to achieve non-routine or even one-off goals and tasks which require creativity, innovation and knowledge creation. In our view, such temporal differentiation in organizational design could be a valid alternative to other forms of coordination. The study of time and temporality in TOs can also be linked to the emerging literature on teams which has recently started to explore the differences between teams based on time (see Bradley *et al.*, 2003; Saunders and Ahuja, 2006).

Despite the importance of examining temporality in TOs, the generalizability of our theorizing and propositions to all temporary organizations may be limited. First, our propositions mainly pertain to TOs that involve full-time members. TOs whose members work part time on a project – and the rest of their time in the permanent organization – or TOs that require constant elaborate interaction with the permanent organization, are likely to reduce the emergence of in-group dynamics and the impact of temporariness on the processes described in this chapter. Similarly, our propositions are likely to be attenuated by the reality that some TOs are part of routine, continuous collaboration within or between organizations. Such TOs are made up of the same or similar groups of people over and over again. The same caveat can be applied to TOs that stretch over extremely long periods of time, more and more resembling non-temporary

rather than temporary systems. We think, however, that these repeated and infinitely stretching projects, to some extent violate TOs' principle characteristic of temporariness. In fact, as Bradley *et al.* (2003) have noted, short-term, temporary teams working together on tasks of long duration, develop skills and motivations usually found in ongoing, non-temporary teams. Nevertheless, it should be noted that our proposed effects are likely to occur mostly in pure TOs that focus on rare or 'one-of-a-kind' tasks to be accomplished within a limited time frame, with a group of people who share either a limited, or no future of working together. The third and last limitation we see in our propositions is that they are conditional on subsequent empirical research and that the empirical base for many of our propositions is sparse and has never been applied to TOs. Studying the propositions in this chapter would require substantial effort, and, because of their varied nature, require a diverse set of methodologies for data collection and analysis. Considering the prevalence of temporary organizations and the ever-increasing need for creativity and innovation in less time, we believe that the payoff would be substantial.

## NOTES

1. In line with the rest of this volume, we will refer to temporary organizations as TOs despite the fact that this label is somewhat problematic. The term 'organizations' has many characteristics, some of which are applicable here and some that are not. In this chapter, TOs should rather be viewed as temporary social systems, in which people come together as representatives of organizations, to perform a task under the explicit condition that it is known from the outset that this social system will exist for a limited duration.
2. As is the extreme case with clock time in our contemporary society.
3. Although we readily acknowledge that this is but one possible view of TOs.
4. In fact, there is empirical evidence that there is an association between a stronger orientation towards the present and a distorted perception of duration, in which the present is rated to last longer than usual (Twenge *et al.*, 2003).
5. Finally, it is worth stressing that in addition to immersion in present activity, other factors, such as clear goals and few distractions (Mainemelis, 2001), are considered to be conducive to experiences of timelessness. Both of these factors have been linked to some extent to TOs. However, since we do not view them as exclusive to TOs, we do not focus on them in our analysis. Instead, we only focus on temporariness, which is exclusive to TOs.

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