THE FUTURE-INFinitive: THINKING DIFFERENTLY ABOUT
STRATEGIC CHANGE MANAGEMENT

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New ways of managing change have run aground on the uncritical acceptance of a limited view of temporality, particularly the conception of the future. Strategy formulation and organizational change theories subscribe to the notion of causal time and the “future-perfect,” which emphasizes identity and state-transitions. While such approaches claim to focus on the temporal future, causal time is inherently static-state focused and past-centered. An alternative view is offered—the “future-infinitive”—which emphasizes the flow of time, a dynamic of the always arriving future. The claim is made that such a future-centered temporality provides a deeper understanding of improvisational processes involved in creating strategies and organizational change programs that can effectively cope with accelerating and continuous change.
Aphorisms about the constancy of organizational change in a turbulent environment abound in the management literature and popular business press. We are told that “change is here to stay;” that managers must learn to manage in “permanent whitewater” (Vail, 1996) and “thrive in chaos” (Peters, 1987). Alvin Toffler’s (1970) popular book, *Future Shock*, produced in the public consciousness a sense that the world was entering a state of continuous flux, evidenced by the unrelenting dynamic of change, the ephemerality of the present, and the incessant emergence of novelty in every segment of society and culture. In the past decade, the management of change has become a mainstream topic in most business schools and corporate universities. And the performance bar is being raised, for change itself is accelerating, and the successful manager or change agent must cope with change faster and more effectively. Whether this means faster product development cycle time (Stalk & Meyers, 1993), speed to market (Meyer, 1993), fast-cycle organization development (Anderson, 1999), accelerating the organization (Tenkasi, Mohrman & Mohrman, 1998), or “real-time” competition (McKenna, 1999), the message comes through loud and clear: speed, faster response times, and “real-time” decision-making are the royal road to survival and financial success.

Underlying this focus on change and the technologies of acceleration is a consensus view of time (Burrell, 1992: 165), grounded in a sense of temporal alienation. In this consensus view, the passage of time—its turbulence and dynamic—are viewed as negatives. Time itself is seen as a noxious and unruly force, and the aim of management is to bring it under control. Planned change, strategic planning, and other forms of rational control become the means to ensure the ongoing survival of the organization in a hostile temporal environment. Given how much of an organization’s resources are directed toward this end, how exhausting it often seems to try to keep up with change, and how indifferent the success of such efforts often proves to be, it is indeed surprising that this view of time as the metatheoretical frame for change interventions has
In this paper, we examine the understandings of time that inform current change theories and propose a radical alternative, based on cultivating the direct experience of time. Our focus is the relationship between time and knowledge. In the prevailing model, knowledge is a process that happens over time, and takes time to accumulate. When the rate of change itself is steadily accelerating, this means that it becomes highly problematic whether the knowledge needed to manage change can be accessed in a timely manner. This inherent tension between coping with change and acquiring knowledge arises because the passage of time is the enemy of knowledge acquisition. In the model we will introduce, on the other hand, this tension dissolves, because time itself is the carrier of knowledge. The more managers and theorists can access the experience of time, the more they will have access to the knowledge it carries, a knowledge that is inherently as fluid and dynamic as time itself.

Our analysis is divided into three sections. We begin by identifying a “causal time” framework as underlying current change theory. The causal-time framework leads to change-management approaches that analyzes current situations in terms of the past conditions that gave rise to them. It results in knowledge that is bound to the inertia of past routines and the gravity of organizational identity, and thus proves counterproductive when the truths that held in the past mutate with ever increasing rapidity. Attempts to manage such temporal turbulence through the speed-up of knowledge acquisition (so-called “real-time” responses) do not address this fundamental flaw, since they continue to depend on knowledge accumulated through the analysis of past circumstances and their impact. To clarify how these limitations operate, we introduce an alternative “flow time” model.

In the second section of the paper, we review extant theories of organizational change and organization development in light of the distinction between causal time and flow time. We
argue that some of the more promising recent theoretical innovations can be viewed as attempts
to tap into the knowledge that flow time makes available. However, we conclude that recent
work remains to closely bound to the causal-time framework to allow for real innovation in the
acquisition of knowledge.

In the last section, we develop the implications of a flow-time temporal framework for
knowledge acquisition and change management. Unlike causal time, which is centered on the
past, flow time is centered on the future. We distinguish this future-centered approach from the
recent interest in change guided by “future perfect” visions of what is possible (Das, 1986;
Davis, 1996; Weick, 1979), which we regard as still bound to the past and to the causal-time
framework. Whereas causal time regards the future as an empty and indeterminate dimension,
closed off to knowledge, flow time redefines the future as immediately available, in its present
arriving. Understood in this way, the future gives access to the dynamic of time. Knowledge
attuned to this dynamic can serve as a more reliable guide to managing continuing change. The
practical implication is that organizations and organizational actors can engage the turbulence of
time in a sure-footed, graceful way. They can respond appropriately to change because they are
wholly embedded in change. We conclude with some thoughts on how this approach can be
implemented, and on the possibilities for organizational transformation it offers.

CAUSAL TIME VS. FLOW TIME

Identity in Linear Time

Models of change in current organizational theory rest on a theoretical understanding of
time whose guiding concept is permanent identity. Objects, entities, and things all have a fixed
identity, which is fundamentally unchanging; i.e, which stands outside the flow of time. “Time”
and “things” are placed in opposition; if time is a river, then things and entities of all kinds are
the solid rocks that remain unmoved as the current flows by.

For complex entities such as organizations, the issue of identity is more complex than for
such “things” as tables and rocks. Maintaining an identity “over” time depends on the operation of a narrative that gives coherence to a temporal sequence of events, a “founding story” (Tulku, 1987) or deep structure, collectively constructed and constantly reaffirmed. Nonetheless, the net result in terms of the temporal framework is the same. On the basis of its founding story, the organization exists “in” time, and although its identity evolves and changes “through” time (Goia, Schultz, & Corley, 2000), at the deepest level it remains constant “across” time. The effect is to turn time into a hostile, alien force. The more we focus on identity, the more we find ourselves standing outside the time-stream. When temporal change comes, it can only be a threat to our ways of coping, our success, and even our survival.

The focus on identity leads to a linear conception of temporality. For the narratives that sustain identity to take hold, time must operate in a sequential way. This temporal unfolding finds its clearest expression in the causal sequence through which one event gives rise to another. Hence, we will refer to this conception of temporality as the ‘time-as-causal-sequence” model, or simply “causal time.” Causal time is seen as one-dimensional, structured in terms of past, present, and future. An unending sequence of present moments arise and pass away in linear series, each somehow causally giving rise to the next. This “time-line” of causal time readily becomes a measurement scale, an abstract grid that allows events and objects to be indexed and located in terms of “points” of time, conceived in terms of equal units or intervals such as hours or minutes.

Causal time has Newtonian roots (Adam, 1991). Newtonian time functions simply as a measure of motion: the numerical interval between two static states. In this model, the mover is distinguished from the act of moving; the movement itself essentially disappears. It follows that the effect is inherent in the cause: the end state $t_2$ is inherent in the initial state $t_1$. In this “from-to” causal structure (Tulku, 1994), the past is necessarily privileged, for whatever arises in the future has its origin in the past. Explanations are constructed by tracing the causal temporal chain backwards; predictions are made by extrapolating and projecting the chain forward.
The Apotheosis of Causal Time in “Real-Time” Change

One attempted answer to the limits on causal time is to negate time entirely, a strategy that has ironically come to be known as operating in “real time.” The real-time approach is based on what Arendt (1981) called the “means-end paradigm,” according to which the aim of any action or strategy is to do whatever it takes to bring about a desired result. In this model, time is conceptualized as an obstacle to the attainment of future desires and goals. The ideal would be to eliminate time entirely, to shrink to zero the gap or temporal distance between the present state and a desired future state. Just this is what is called “operating in real time.” In effect, real-time is “chronoscopic time” (Virilio, 1997) a sequence of punctuated temporal intensities fixated on the present-instant.

With the emergence of digital technology, the hope has emerged that time-negating real-time operations can become a reality, for digital technology shrinks the distance between “here and there,” “now and then.” By shortening clock-time units, it compresses space and time (Giddens, 1984; 1991); often to the point of virtual instantaneity. Regis McKenna (1997: 3) celebrates the potential of this transformation in the opening sentences of his book, Real Time: “Imagine a world in which time seems to vanish and space seems completely malleable. Where the gap between need or desire and fulfillment collapses to zero. Where distance equals a microsecond in lapsed connection time.”

Real-time is nonetheless causal time, which means that it centers on the past. Its concern, however, is with the future, which it aims to control through the technology of instantaneity. In effect, the future is replaced by a despatialized, dehistoricized, and detemporalized present (Jameson 1997; Adam, 1988). Nowotny notes this trend:

We are about to abolish the category of the future and replace it with that of the extended present…The category of the future is shrinking towards becoming a mere extension of the present because science and technology have successfully reduced the distance that is needed to accommodate their own products. (1988:14-15, emphasis in original)

Real-time promises autonomy and independence from the flux of time, but its method for
doing so is to deliver us up to the constructs of the past. As Adams (1998) puts it, real-time does not depart from the mechanistic principle of repetition without change—a standardized order that is intolerant of all variation. The accelerating forward trajectory of real-time has its source in the past, and its acceleration is only the continued acceleration of past routines. The result is a characteristic disconnect between real-time and knowledge. Organizational actors who are always responding to a series of real-time instants are forced to “think and act immediately” (McKenna, 1997) and instant responses necessarily fall back on learned routines and unconscious cognitive biases (Purser, Pasmore, Tenkasi, 1992). The real-time digital time freeze thus makes the future more unknowable than ever. Rather than developing the ability to engage the changing realities of their situation, organizations find themselves trying to map learned routines and algorithms onto what time presents. The instant response always comes a moment too late, and fast is never fast enough. Even when a real-time response does seem to meet the immediate need, a destructive cycle is set in motion. The real-time actor is bound to an endless series of causal reenactments, a continuous instant-replay, with each cycle demanding greater speed and efficiency. The “speed-slippage-more speed” cycle is a vicious causal loop, intensifying the inadequacy of past-centered responses.

The ‘Flow Time’ Alternative to Causal Time

The causal-time model ignores the dynamic of time in favor of the identified entities that exist “in” time and move “through” time. Reversing this perspective means focusing on time as flow. In a flow time model, identity is no longer privileged; instead of being conceived as invariant and independent of the temporal flow, like a rock in a stream, identity is seen more as bubble in the water, formed and informed by the water’s flow. From this perspective, all objects/identities are abstractions from an undivided and flowing movement. As the physicist David Bohm put it:

This view implies that flow is, in some sense, prior to that of the “things” that can be seen to form and dissolve in this flow. . . . [I]n spite of the undivided wholeness in flowing movement, the various patterns that can be abstracted from it have a certain relative autonomy and stability, which is indeed provided for by the universal law of flowing movement. Now, however, we have the limits of this

In a flow-time perspective, identity can be recast as the hypostatization of the underlying temporal dynamic. When we drop the identity-centered focus of causal time and return to flow time, we discover a undivided, flowing movement: what Bohm (1995) calls the holomovement and Tulku (1994) refers to as nuclear time. The difference between these two different orders of time are depicted in the Figure 1 below:

Insert Figure 1 about here

As Simpson (1995) puts it, movement in flow time is not extensive (movement along a line), but intensive, opening inwardly into depth and potentiality of the whole. Similar distinctions have been made in recent times across a wide range of literature; e.g., “finished product thinking” and process thinking (Bortoft, 1996) representational thinking vs. poetic thinking (Heidegger, 1985); natura naturata vs. natura naturans (Adam, 1998); formative cause vs. final cause (Bohm, 1995); distal vs. proximal modes of thinking (Holmer-Nadesan, 1997); form vs. transition (Bergson, 1911); and system vs. synaeresis (Gebser, 1986).

One way to imagine this intensive dimension of flow time is in terms of a capacity for temporal shape-shifting, with identities not fixed from moment to moment. As we shall argue below, the shift away from identity gives access to new forms of knowledge that make possible creative modes of organizing and management that can be more responsive to turbulence and change.

**CAUSAL TIME IN ORGANIZATIONAL CHANGE THEORY**

We have already pointed out that a causal-time perspective is implicit in real-time theories of change-management. We turn now to a more general review of change theory, with the aim of laying bare the temporal framework within which change processes are ordinarily understood to unfold.
Lewinian Change Theory

Kurt Lewin’s (1951, 1958) planned change theory is widely accepted in the field of organizational development. According to Lewin, a critical element in successful change is helping organizational actors change their old attitudes and behaviors and acquire new ones in line with the desired future state or condition. Resistance to change comes when individuals refuse to let go of previously learned dysfunctional attitudes and feelings. Lewin (1958) elaborated these insights in his classic three-stage model of successful planned change: unfreezing, moving, and re-freezing: what today would be called an equilibrium/transition model. As Schreyogg & Noss (2000) elaborate, in Lewin’s model change is the process whereby the system transitions from one equilibrium point to another. A primary requirement for this transition is that organizations have to go through a stage of unfreezing—a period of self-reflection and involvement intended to create motivation and readiness among organizational actors to give up their deeply rooted orientation patterns and routines. The next stage is one of cognitive restructuring, where the actors acquire information and evidence showing that change is desirable and possible. Re-freezing is the stage where the system settles down at the new equilibrium point and integrates the new behaviors and attitudes in enacting the desired future state or condition. From a change-agent point of view, successful change is viewed as a plan or project that has to be guided through these three distinct phases, and change management is a linear transformation project to be executed in well planned and strictly sequential phases (Beer, Eisentstat & Spector, 1990; Kotter, 1995).

Lewin’s three stages—unfreeze, change and refreeze—offer a generic recipe for understanding organizational change and development. As Hendry (1996: 624) notes, “Scratch any account of creating and managing change and the idea that change is a three-stage process which necessarily begins with a process of unfreezing will not be far below the surface. Indeed it has been said that the whole theory of change is reducible to this one idea of Kurt Lewin’s”. Several and widely varying approaches have developed within Organization Development (OD) (Cooperrider & Srivastava, 1987; Porras, 1987), yet almost have stayed with the linear, identity-driven logic of the change process that Lewin formulated. In other words, they have relied on a
causal-time model, characterized by Weick and Quinn (1999: 327) as akin to Newtonian physics.

**Punctuated Equilibrium Theory**

One of the few theoretical formulations in the field of Organizational Development said to take into account the temporal dynamics of change (Zaheer, Stuart, & Zaheer, 1999) is the “punctuated equilibrium” model (Gersick, 1991; Greenwood & Hinings, 1993; Miller & Freisen, 1984; Sastry, 1997; Tushman & Romanelli, 1985). Punctuated equilibrium models conceptualize organizational change as a phasic oscillation between stability and upheaval. Drawing from the Kuhnian distinction between normal and revolutionary science as well as theoretical formulations in the field of biology, such models posit long, stable periods of organizational functioning that are infrequently punctuated by relatively short periods of transition, dramatic shifts that necessarily take the form of an organizational revolution characterized by confusion and disarray. The periods of stability are equilibrium points during which organizations progress smoothly along a well-established path that is itself the outcome of past conditions. The punctuated equilibrium model is also invoked in explaining innovation, particularly with reference to technological paradigm shifts (Tushman and Anderson, 1996; Tushman & O’Reilly, 1996; Utterback, 1994).

Interesting and fruitful as these formulations have proved, they do not depart in any significant way from the linear temporal logic inherent in Lewin’s unfreezing/refreezing approach. In the Lewinian tradition the leverage for change is located between the unfreezing and refreezing phase. Various OD interventions are applied to unfreeze, move and refreeze the system. From the punctuated equilibrium point of view, change is a special phase sharply at variance from the stability phase, a short, clear cut sequence of upheaval followed by a long stage of stability. Both models conceive organizational change processes as being composed of separate phases that build in a linear sequence. Both accept the framework of causal time.

**Other Causal Time Models**

Van de Ven and Poole’s (1995) comprehensive review of extant theories of organization change and development takes as its goal developing new theories of organizational change that offer stronger and broader explanatory power than the extant perspectives. On the basis of an
interdisciplinary literature review the article introduces four basic types of process theories that explain how and why change unfolds, and contend that all specific theories of organizational change and development can be built from one or more of the four basic types.

**Life-Cycle Theories.** In such theories, change in organisms (organizations) is immanent. The developing entity has within its underlying form a logic, program, or code that regulates the process of change and moves the entity from a given point of departure toward a subsequent end that is prefigured in the present state. Stages derive from a common underlying process, and unfold in linear progression and prescribed order.

**Teleological Theories.** Teleology is the philosophical doctrine that purpose or goal guides the movement of each entity. It underlies such theories of organizational change as functionalism, adaptive learning, decision making, and social constructionism, as well as most models of strategic planning and goal setting. In contrast to life-cycle theory, teleology incorporates the assumption of equifinality; i.e. that there are several equally effective ways to achieve a goal. However, each model under this approach unfolds in a linear way. The focus is on the prerequisites for attaining the goal or end state.

**Dialectical Theories.** Drawing from Hegelian assumptions, these theories view organizations as existing in a pluralistic world of colliding events, forces, or contradictory values that compete for domination and control. Stability and change are explained with reference to the shifting balance of power between and among opposing entities. In other words, a linear logic again prevails. Separate, distinct phases alternate with one another or produce a new status quo in the form of a synthesis of prior antitheses.

**Evolutionary Theories.** Evolutionary theory is typically used to explain global change in organizations; some theorists would include punctuated equilibrium theory under its aegis (Gersick, 1991; Tushman & Romanelli, 1985). The focus is on changes in structural forms of populations of organizational entities across communities, industries, or societies at large (Aldrich, 1979; Campbell, 1969; Hannan & Freeman, 1977). As in biological evolution, change proceeds through a continuous cycle of variation, selection, and retention. Through this dynamic, certain organizational entities gain competitive advantage over others, passing on their
distinctive characteristics and modifying their environments in ways that naturally bring forth new and better adapted competitors.

This brief review naturally does not do justice to the framework developed by Van de Ven and Poole, let alone the complexities of individual theories, but we believe enough has been said to make the point that is central here. Each of these approaches—and thus, in principle, the entire range of organizational-change theories—relies on a causal-time understanding of temporality that allows only for linear progression and causal sequences of events.

**Evaluation of Planned Change Approaches**

How effective are causal-time approaches to change management? Two studies (Porras & Silver, 1991; Robertson, Roberts & Porras, 1993) have attempted to address this question. The Robertson et.al. (1993) study is the more recent and comprehensive, applying meta-analytic procedures to integrate fifty-two previous empirical evaluations of planned change interventions reported between 1969 and 1989. Both studies, however, arrive at similar results. They find either mixed or inconclusive results for planned change interventions with respect to their intended change targets. Based on the analysis in the first part of this paper, we conclude that the failure to achieve better results traces to a reliance on the fundamental assumptions that a causal-time framework puts into play. As long as the planned-change process is based on the assumption of fixed identities and discrete entities that move through time, there can be no alternative to recreating routines from the past and reproducing interventions that fall within a limited range.

**Causal Time Distortions of the Change Process**

The model of sequential change from one static state to the next ignores what Bergson (1911) refers to as “true duration” (dureé), a concept that captures many aspects of what we have called “flow time.” The causal-time focus on identity and form “solidifies into discontinuous images the fluid continuity of the real” (Bergson, 1911: 303); it turns organizational attention toward the “unmovable plan of the movement rather than the movement itself.” When change processes become invested in “the plan” as a means to generate movement from the present state to the desired future state, that movement is mistakenly analyzed in terms of a sequence of
frozen moments. Weisbord (1988) calls this approach “snapshooting,” and presents it in a positive light. He describes it as follows:

We freeze the action at a moment in time, arrange key factors in a conceptual framework, and observe—with our clients—the relationship highlighted in the conceptual frame. Diagnosis has two purposes: to produce valid guidelines to action and to stir up more people that the person we first contacted to want to do something. This stirring up can be thought of as a movie-making problem. (1988:65)

The need to “stir up” change, to go from the frozen moments and still frames of the snapshot to something truly alive and dynamic—what Weisbord calls the “movie-making problem”—goes to the heart of the issue. Bergson argued that it was impossible to constitute movement, change or momentum out of the immobile: “…every attempt to reconstitute change out of states implies the absurd proposition, that movement is made of immobilities”. He argued that instead we must enter the flow of time directly:

It is no use trying to approach duration: we must install ourselves within it straight away. This is what the intellect generally refuses to do, accustomed as it is to think the moving by the means of the unmovable. (1911: 299)

Like Weisbord, Bergson used the analogy of cinema to make his point. When we film moving objects with a camera, the mechanism of the camera singles out moments, dissecting what is in reality a continuous flow. Such static pictures are equivalent to the analytic “freezing” that underlies all causal-time plans for implementing organizational change. Both divide and dissect, fictitiously freezing or arresting what is essentially an undivided flowing movement.

Because it requires holding together a series of snapshots in order to assert constancy and content, repetition and representation, identity binds up energy. Its consolidating tendency turns away from the dynamic flow of time, where the knowledge needed to manage change is available. Such “finished product” thinking (Bortoft, 1996) ignores the formative dynamic of time’s flow.

The causal-time view of organizational change reflects this perspective in its core
assumptions. Emphasizing form over movement, it emphasizes the state to be achieved and the causal sequence of intermediate states that will make the possible. Yet Bergson long ago pointed out the fallacy in this approach:

[I]n reality the body is changing form at every moment; or rather, there is no form, since form is immobile and the reality is movement. What is real is the continual change of form: form is only a snapshot view of a transition. (1911:301, italics in original)

In today’s organizational environment of continuous change, the consequences of working within this fallacious approach are felt with increasing frequency.

**Recent Attempts to Think Through the Impact of Continuous Change**

In a recent review, Weick and Quinn (1999) focus on emerging theoretical insights that suggest a continuous, evolving, and incremental view of change more in keeping with flow time. They use the notion of “continuous change” to group together organizational changes that tend to be ongoing, evolving and cumulative. There is a shift away from planning to the insight that change is emergent, “the realization of a new pattern of organizing in the absence of explicit a priori intentions” (Orlikowski, 1996: 65). It is a process of “accommodations to and experiments with the everyday contingencies, breakdowns, exceptions, opportunities, and the unintended consequences” of action, as well as the assumption that everything changes all the time (Ford & Ford, 1994). As laid out by Orlikowski:

There is no deliberate orchestration of change here, no technological inevitability, no dramatic discontinuity, just recurrent and reciprocal variations in practice over time. Each shift in practice creates the conditions for further breakdowns, unanticipated outcomes, and innovations, which in turn are met with more variations. Such variations are ongoing; there is no beginning or end point in this change process. (1996:66)

In this way of understanding change, planning is no longer the central focus. Instead, “change is a phenomenon of time. It is the way people talk about the event in which something appears to become, or turn into, something else, where the ‘something else’ is seen as a result or
outcome.” (Ford & Ford, 1994: 759) On-going variations emerge frequently, sometimes even imperceptibly, in the slippages and improvisation of everyday activity. They involve simultaneous composition and execution, or repeated acts of learning that enlarge, strengthen or shrink the repertoire of responses (Weick, 1991). Images of organization compatible with this continuous change approach include those built around the ideas of improvisation, translation and learning.

In the face of continuous change, Lewin's three-part equilibrium/transition model for change—unfreeze, move, re-freeze—is no longer pertinent. Weick and Quinn (1999) offer a more plausible change sequence: “freeze, rebalance and unfreeze.” To freeze continuous change is to make a sequence visible and to show patterns in what is happening, through cognitive maps, schemas, or “war stories.” To rebalance is to reinterpret, relabel, and resequence the patterns so that they unfold with fewer blockages; for instance, by reframing issues as opportunities and reinterpreting history. Finally, to unfreeze after rebalancing is to resume improvisation, translation, and learning, processes that are inherently more mindful of sequences, more resilient to anomalies, and more flexible in their execution. Viewing change as non-discrete and continuous requires a focus on “changing” rather than “change.” (Weick and Quinn, 199:382)

If organizational identity is not actually separate from the flow of time, then there is no solid ground for staking a permanent position that could support claims of identity. Instead, there are only “acts of positioning,” “in-formed” by the underlying temporal dynamic (Tulku, 1987) rather than resisting it. There is nothing “outside” the changing conditions to be changed; there is simply the on-going process of changing. Traditional concepts of managing and leading change yield to methods aimed at deepening participation or immersion in the immediacy of the temporal flow. Such methods depend on a willingness to let go of the identity-centered obstacles to change that organizations invariably erect.

**FLOW-TIME MANAGEMENT OF CONTINUOUS CHANGE**

If change is continuous, the issue of acquiring the knowledge necessary to manage change becomes newly problematic. In this section of the paper, we first investigate how the
causal-time framework, which relies on planning for the acquisition of knowledge, fundamentally restricts the possibilities for the kinds of knowledge that could become available to change agents. We then explore the “future-perfect” approach, much discussed in the literature, which might appear to offer an alternative to causal time, but proves not to do so. Finally, we suggest how moving to a flow-time framework makes the future available directly, so that the knowledge needed for managing (to) change is already at hand.

**Managing Change through Planning: Virtual Knowledge Drawn from the Past**

In a causal-time framework, planning will be the vehicle of choice for change management. Bennis, Benne, Chin and Corey describe how planning addresses the future and the changes it brings:

> A planner’s present situation always includes a time perspective forward—a future different from the present, yet populated with more or less clearly delineated agents and counteragents, objects to be avoided, objects to be embraced, means to empower avoiding or embracing, and some context of interrelated factors and forces, human and non-human, benign, hostile, or neutral. (1976: 427)

Planning is a tool, a paradigmatic example of the “calculative thinking” (Heidegger, 1962) that is directed toward achieving desired ends or controlling one's environment. But a tool is only as good as the knowledge that guides it. The passage just quoted identifies this knowledge as the ability to delineate (i.e., discover and differentiate) “agents and counteragents, objects to be avoided, objects to be embraced, means to empower avoiding or embracing, and some context of interrelated factors and forces.” It is a knowledge, in other words, that proceeds by manipulating identified entities.

Identity, however, depends on the past. When rapid change guarantees that the future will differ radically from the past, identity-centered knowledge quickly becomes irrelevant. For instance, Delbecq (2000) has stated that a typical Silicon Valley start-up goes through 12–14 basic changes in identity (mergers, acquisitions, etc.) in the first eighteen months of its existence. In such circumstances, planning loses much of its effectiveness. The future will be different from the past in ways that cannot be predicted or spelled out in advance.
The same point can be made at the micro-level. Planning depends on acquiring and analyzing data. But while this investigation is taking place, change continues. In a turbulent environment, this will mean that solutions are out of date even before they emerge. The first step in planning—freezing time—proves inherently self-defeating, for time itself does not stop: The future continues to arrive. Soon the cognitive map generated from a frozen image becomes outdated, but there is no opportunity to create a new one.

At both these levels, living in an environment of continuous change brings into sharp relief a limitation inherent in all planning; namely, that planning is necessarily based on ignorance. Depending as it does on the causal-time framework of static states in linear succession, planning attempts to deal with the future by identifying likely problems and their solutions. But this is an impossible task, for the future is open, and there is nothing there to be identified or known in advance.

In response to this ignorance of the future, planning can offer only virtual knowledge. The assumption is made that the future will be pretty much like the past, and that sequences of events set in motion in the past will interact in predictable ways with predictable consequences to generate the future. Just as we might send a robot into a poisonous environment where human beings cannot go themselves, so we send our plans—our virtual, extrapolated “knowledge”—into the future, where knowledge cannot go. In more settled times, such virtual knowledge will often prove a useful substitute for the real thing. But in the world of ‘faster’, virtual knowledge will no longer suffice.

Aware of this difficulty, planning theorists have tried to modify the structure of planning. The “real-time” approach to change management described in the first part of this article is one such attempt. The logic inherent in the real-time remedy is this: If the temporal gap between past and future, or between the time of planning and the time of implementation—can be reduced to the vanishing point, the corresponding gap between knowledge and virtual knowledge can safely be ignored. The hope is to compensate for the tendency of virtual knowledge to decouple from reality by instituting a kind of micro-planning, in which virtual-knowledge assumptions are constantly being corrected, what (Weick & Quinn, 1999: 377) call “a series of fast mini-episodes of change.”
Of course, there are major practical problems with this approach. On the one hand, constantly generating new micro-plans works against any attempts at coherent strategic planning. Either such mini-responses to changing conditions tend toward chaos, or they build up a momentum that can be reversed only with difficulty when more substantial changes present themselves. On the other hand, if organizations opt for coherence, real-time changes will be possible only around the fringes, resulting in a penny-wise/pound-foolish approach to planning that leaves the real-time model largely irrelevant. In either case, the real-time “solution” to the planning dilemma remains firmly bound to the logic of planning. Relying on virtual knowledge, ‘real time’ can only offer a virtual future, confabulated out of data collected in the past.

Managing Change Through Vision: The Reign of the Future Perfect

A very different response to the shortcomings of planning is to focus instead on vision (Boulding, 1976; Davis, 1996). The visionary is more proactive than the planner; she takes control of the change process to produce a desired end. The idea was well captured in the tag-line used by a San Francisco area newscaster back in the 1970’s at the end of each broadcast: “If you don’t like the news, go out and make some of your own!”

In one sense, planning and vision go hand and hand. As Bennis, et. al. note (1976: 427): “Whatever else planning may mean, it signifies an anticipation of some future state of affairs and the confirmation of a vision of that future in the present in order to motivate, guide, and direct present action.” Still, placing the emphasis on vision suggests a possible escape from past-bound planning, as the causal nexus yields to an emphasis on bringing future goals and intentions into being. Davis (1996:42) argues that this shift amounts to a revolutionary approach to time, a shift from a Newtonian to an Einsteinian model of the temporal framework.

On closer inspection, however, this shift proves largely illusory, for the future that the visionary aims to bring into being turns out to be in essence a hypothetical version of the past. This point was clearly worked out by the sociologist and phenomenologist Alfred Schutz (1972/1932), whose insights on this point underlie the work of such organizational theorists as Weick (1979), Das (1986), and Davis (1996). Schutz explained that the future is available to us only when we imagine it to have been already completed; only, that is, in the “future perfect”
tense:

[T]he actor projects his action as if it were already over and done with and lying in the past. It is a full-blown, actualized event, which the actor pictures and assigns to its place in the order of experiences given to him at the moment of projection. Strangely enough, therefore, because it is pictured as completed, the planned act bears the temporal character of pastness. . . . The fact that it is thus pictured as if it were simultaneously past and future can be taken care of by saying that it is thought of in the future perfect tense . . . . (1972: 61, emphasis in original)

Since vision-centered models for change remain bound to the past, they bring us no closer to knowledge of the future. Considered as an ideal type, future-perfect planning has everything to do with the way we think about or project the future, and nothing to do with the happening of the future as such (Das, 1986). The risk of self-deception is obvious.

A Radical Alternative: Managing Change through Knowledge of the Future

Both strategic planning and visionary innovation try to populate the open unknown of the future with past-centered content. This approach is based on causal time, which treats the temporal framework as the setting within which events appear, and thus inevitably “draws a blank” when it comes to the future. In the framework of flow time, however, the future manifests as pure becoming—the arriving or happening of time, independent of the content of what arrives. From this perspective, we have access to the future after all: a future whose reality is its dynamic. Knowledge of this future is not beyond our reach.

We have already encountered a flow-time view in the writings of Bergson. But it was Bergson’s contemporary, William James, who understood that a focus on flow could make a different knowledge available. He suggests as much in his famous image of the stream of consciousness, whose real significance is mostly overlooked

This image suggests how knowledge of the future might be possible. Instead of focusing on the “definite images” that come when we center our understanding of time on the past, we can look to the “free water” of time’s flow. This free flow is the future, understood as the arriving of what is happening right now. We find this future at the edge of the present (Tulku, 1994), in flow
time. It arrives without taking form, a ‘transitional transmission’ (Tulku, 1994: 97) that never restricts with pre-established identities. By contacting and operating from within this “real” future, change agents need no longer repeat variations on the past. Instead, they can accommodate the uniqueness of this very time. Entering the flow of time directly, they can know the future as this arriving, and let that knowledge guide their interventions.

**Finding Knowledge Just in Time**

The knowledge available in flow time is completely different from the past-centered and content-driven knowledge that guides planning or the subjective ‘knowledge’ that emerges in the future perfect. This does not mean, however, that such knowledge is foreign or esoteric. It is simply knowledge that is usually considered beyond the reach of theory: knowledge that becomes available without our being able to offer a good explanation for how. It is the knowledge that arises as creative breakthroughs; that introduces something new. As Bergson (1911: 167) maintains: “Precisely because it is always trying to reconstitute, and to reconstitute with what is given, the intellect lets what is new in each moment of a history escape. It does not admit the unforeseeable.” Yet as Arendt (1963: 169) notes, it is just the new that accounts for human achievement: “[T]he faculty of freedom, the sheer capacity to begin, . . . animates and inspires all human activities and is the hidden source of production of all great and beautiful things.” In flow time, the new becomes available. Action can complement planning and creativity can come to the aid of rational thinking. We might speak here of “just-in-time knowledge”—not knowledge that arrives just in time, but knowledge that just arrives in time.

In an era of continuous change, future-centered or just-in-time knowledge is essential to organizational development and transformation. Butler (1995: 935; 939-40) has pointed out the inadequacy of decision-making based on computation, bargaining, or judgment in situations when the environment is changing too quickly for clarity to emerge or order to apply, so that time becomes “spasmodic.” For Butler, however, the best one can hope for in such times is decisions based either on inspiration or “muddling through.” In the former case, knowledge remains mysterious: the preserve of genius. In the latter, it remains inaccessible, and we somehow have to manage without it. But we are arguing that just-in-time knowledge is available now, in the future. We turn now to investigate how this is so.
‘Deep Improvisation’ and the Vitality of Time

The “real-time” approach (McKenna, 1997) to change comes quickly and in unpredictable ways, discussed above, is to promote what might be called the agile planner; the one who can turn on a dime. A second response, closer to the view advocated here, emphasizes the need to improvise (Moorman & Miner, 1998; Crossan, Lane, White, & Klus, 1996); to act in what Hatch (2000) calls “jazz time.” McKenna pays tribute to this approach as well, speaking of “the improvisational woman, who makes it up as she goes along and has got it together” (1997: 16). But the metaphor of improvisation is ambiguous. It does suggest appreciation for time as it manifests directly, and for the possibility of accepting the future on its own terms. But it can also be interpreted simply in terms of reducing the time between action and reaction, plan and implementation, to the smallest possible duration (Weick & Quinn, 1999: 376, citing Moorman & Miner, 1998), and in that case improvisation will stay focused on the past. The metaphor takes on its full significance only if we bring out the connection between improvisational action and the knowledge that guides it. To clarify this ambiguity, let us call improvisation that emerges through the arriving of the future “deep improvisation.” Deep improvisation means more than simply responding nimbly to each new challenge as it comes along. It means responding without relying on the claims of identity, on what is already established as so. Instead of imposing images or trying to steer the course of change toward some pre-established aim, “action” becomes “acting;” part of the dynamic play of time. As Tulku writes: “In the future, all remains open, in a dynamic that remains unconfined and thus cannot be excluded.” (1994: 94)

From a causal-time planning perspective, to give up identities would mean abandoning knowledge entirely, for in this view knowledge can emerge only with respect to identified entities (just as light becomes visible only when it reflects off a surface). This is the “snapshot view” discussed by Weisbord (1988) and Bergson (1911) and implicit in the view freeze-rebalance-unfreeze model suggested by Weick and Quinn (1999: 379-80). But in a flow-time perspective, the distinction between identities and flow, knowable objects and unknowable turbulence, breaks down. Identities remain available, for what arrives in time arrives as already identified—the future brings what the past informs. But the tendency to identify is itself a part of
the flow, and the identities that emerge always bear within them the potential to change utterly in the next moment. Tulku (1990: 484) speaks in this connection of a “point of decision,” in which the whole of what presents itself is at stake. Action that happens at this point of decision is what we have called deep improvisation. It engages the whole.

Because the change agent who practices deep improvisation acts from within the flow of time, she has access to the creative knowledge inherent in time itself. This possibility is available in each instant—in the significance of the task at hand; in interactions with others that expand beyond the bounds of assigned identities; in deadline situations that force organizational actors and stakeholders to acknowledge the arriving of each moment.

**Deep Improvisation and Vision**

The knowledge that comes with deep improvisation, however, allows for a different understanding of how vision can become a transformative factor in change management. To be an organizational visionary is not just to head in a new direction, a perfect future envisioned in the future perfect. The true visionary has tapped into the dynamic of the future and draws on its knowledge. When Martin Luther King proclaimed, “I have a dream,” he inspired an entire generation. But it was not the content of his dream that accounted for its impact. Rather, it was the *having* of the dream, the “being possessed” by the arriving of the future. To function in flow time is to participate in the future in a similar sense.

It may help clarify this understanding of vision to compare it to the theory underlying “Appreciative Inquiry,” a well known change management method (Cooperrider & Srivastava, 1987). Change agents who apply Appreciative Inquiry (AI) collect stories from the actors in an organization that relate to times when people were performing at their best, and then arrange for collective discussion of those stories. It practitioners theorize that as individuals share such stories, they create or “dream” a shared image of a new and better future, and thus help bring it into being (Bushe, 1998). From a flow-time perspective, however, this interpretation of why AI is successful is too closely linked to causal time; indeed, it brings to the surface in an unmistakable way the future-perfect understanding of temporality. As an alternative explanation, consider that the key to AI may be the element of collective discussion. It is not that such
discussion generates new ideas or images or confirms old ones, though this may happen. Rather, participants in the discussion, encouraged to let go of their usual identities by an appreciative focus on excellence, have the opportunity to live in future time. If this is so, the emphasis in AI theory on “better theories/ideas/images” (Bushe 1998:2) is misleading. The real focus is what Bushe calls “inquiring with the heart.” Translating between terminologies, this amounts to inquiry that happens in flow time, giving access to the knowledge inherent in the future.

**Knowledge Without Identity**

In flow time, the need that creates identity, together with the indicia that mark out identity (Goia, Schultz, & Corley, 2000) are themselves given by time. The aims of the organization and its stakeholders, as well as the subjective motivations that inspire organizational actors to act, arrive anew in every moment, projected forward by their own dynamic. A knowledge that arises ‘just in time’ can tune in to such arrivings with an exquisite sensitivity. For example, the profit motive is a dynamic at work in each moment of corporate existing. It is not something that stands outside of time, inviolate and unquestionable. In flow time, it is a part of the future's “ongoing emergency.” (Tulku 1990) Yet because the whole of what is is always at stake, it is there with the possibility that in another future, another moment of time, it will cease to be there.

In flow time, then, the organization is the expression of multiple, interacting dynamics, including the dynamic understandings that divide such emerging interactions into identities. It follows that distinctions between the organization and its environment, corporate actors and the circumstances in which they act, or subjective motivations and external conditions do not operate with the conclusive force we usually assign them. Strategy, values, and goals are not attributes of the corporate actor or planner, conceived of as standing outside the flow of time, but part of the arriving whole, the emerging future. And it follows as well that the knowledge that makes sense of out all this need not be brought in from outside; need not be applied. It is always arriving as well. The ongoing dynamic of flow time, identities arise, but are not necessarily held on to; in principle, they can be abandoned the moment they are no longer useful. Conflicts tend to resolve themselves in the very moment they fully emerge. The organization becomes an
ongoing project, a deep improvisation.

If this sounds either threatening or diffuse, it is because we have learned to think of identity as essential to survival. The assumption seems to be that only what has identity can seek (and therefore obtain) its own advantage. But in a world where change is more than ever the only constant, it may be that identity itself is becoming maladaptive (Goia, et. al., 2000). Causal time and the planning orientation it produces have a vital role to play, but the time has come to recognize that they cannot be applied to every circumstance. When they are, the result is to distort or limit the possibilities that organizations can enact.

CONCLUSION

If organizations were machines, or if the times were “normal” in the Kuhnian sense, the knowledge available in the flow of time might be dispensable. Virtual knowledge, as exemplified in planning, might do the trick. But organizations are not machines, nor are these normal times. Organizations are embedded in flow time—real time, which requires real knowledge. In the theory of change management offered here, that real knowledge is available in the future; i.e., in the arriving of time at each decisive moment.

We have seen that causal-time approaches to change management are ill-suited to managing continuous change in creative ways. Real-time approaches, the Lewinian change model, the Weick-Quinn alternative, and future-perfect models all insist on imposing a reality on an always arriving future. This is because they all rely on virtual knowledge, an approach that today is proving itself inadequate. The flow-time alternative is responsive to change in a different way. Sensitive to the whole, not committed to established positions in advance, it allows for deep improvisation. With the just-in-time knowledge it makes available, identity is not an obstacle, and established patterns and protocols are not limits.
REFERENCES

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