

- Recently, there has been an explosion in research on time. This book provides a much needed summary of that work. *The Human Organization of Time* will prove a valuable resource to anyone interested in temporal research in organizations.

Leslie PERLOW, *Harvard Business School*

- Finally a masterful book about time. Bluedorn's work is comprehensive and cutting edge, laying out the interplay of time with fundamental aspects of organizations and individuals. It should be on every serious organizational scholar's bookshelf.

KATHLEEN El sen hardt, *Department of Management Science and Engineering, Stanford University*  
Coauthor of *Competing on the Edge: Strategy as Structured Chaos*

- This is a wonderful and important book, full of fascinating information, insights, conjectures, and constructs. Bluedorn forges a compelling case for the importance of time, and of our roles as current stewards of the temporal commons. From the Big Bang to the Bolshevik revolution to the puzzles of Deep Time, from the social construction of zero to the theory of relativity, from the gates of Trenton State Prison to the gates of Dante's Inferno, *The Human Organization of Time* weaves a compelling fabric of temporal threads. Bluedorn has found power and poetry in time.

ramón aldag, *Department of Management and Human Resources, University of Wisconsin*

- *The Human Organization of Time* is a broad look at how we truly think about time. It unifies the many human patterns of time-scale concepts and gives depth and perspective to a complex field. Thorough and insightful, it will become the standard work.

Gregory benford, *Department of Physics, University of California, Irvine*  
Author of *Deep Time*

- *The Human Organization of Time* stands to be a definitive source for those interested in temporality and time. Bluedorn's knowledge of diverse literatures and his attention both to historical perspectives as well as contemporary theorizing and research is noteworthy. Issues of time and temporality pervade the human experience; Bluedorn helps us to appreciate temporality as a social construction with very real consequences for organizations and their members.

JENNIFER M. GEORGE, *Jesse H. Jones Graduate School of Management, Rice University*

- A remarkable and original contribution to our understanding of the social construction of time and its effects on people and organizations. Playing off against a backdrop of work preoccupied with enduring and stable features of social life, Bluedorn underscores the importance of temporal features—pace, tempo, rhythm, entrainment, and historical turning points.

alan meyer, *Lundquist College of Business, University of Oregon*

# The Human Organization of Time

TEMPORAL REALITIES AND EXPERIENCE

Allen C. Bluedorn

STANFORD BUSINESS BOOKS  
An Imprint of Stanford University Press

Stanford University Press  
Stanford, California

© 2002 by the Board of Trustees of the  
Leland Stanford Junior University

Printed in the United States of America  
on acid-free, archival-quality paper

Library of Congress Cataloging-in-Publication Data

Bluedorn, Allen C.  
The human organization of time : temporal realities and experience /

Allen C. Bluedorn.  
p. cm. — (Stanford business books)  
Includes bibliographical references and index.

ISBN 0-8047-4107-7 (alk. paper)

i. Time—Social aspects. 2. Time—Sociological aspects. I. Title.

II. Series.

HM656 .B58 2002  
304.23—dc2i

2002001375

Original Printing 2002

Last figure below indicates year of this printing:

11 10 09 08 07 06 05 04 03 02

Designed by James P. Brommer

Typeset in 10.5/14.5 Caslon

To those who have brought such exquisite meaning to my times;  
may their times be the best of times always:

*To my wife, Betty;*

*To my sons, John and Nick;*

*To my brother, Ralph;*

*To my mother, Evelyn;*

*To my father, Rudolph, 1905—1988.*



## New Times

Look back on time with kindly eyes,  
He doubtless did his best.

—Emily Dickinson, *Poems*

"What is time then?" asked Saint Augustine sixteen hundred years ago. Many have offered answers to this formidable question since Saint Augustine posed it, several of which were presented in Chapter 2. But Saint Augustine's concern suggests another line of inquiry guided by two related questions: (1) How did humanity organize time during Saint Augustine's day? (2) How has the human organization of time changed over the last sixteen hundred years? Several temporal concepts and findings presented over the preceding eight chapters allow these questions to be answered with reasonable certainty.

First, epochal rather than fungible time would have dominated Saint Augustine's era (see Chapter 2). The hours of his era were temporal hours, not equal hours, and dates past were reckoned in terms of a particular sovereign's reign (see Chapter 1), all of which tend toward epochal time rather than fungible. So excepting the Julian calendar, most time reckoning occurred in an epochal frame.

Second, sixteen hundred years ago the cultures throughout most of the world likely emphasized polychronic rather than monochronic life strategies (see Chapter 3). Such was the judgment of Richard Gesteland: "Centuries ago when all societies on Earth were polychronic" (1999, p. 58). Edward Hall reached a similar conclusion (Bluedorn 1998, p. 114). So it is plausible to sug-

gest that monochronic time may have been a product of trends that developed during the Renaissance and the industrial revolution. Saint Augustine probably lived in a society whose members interacted polychronically.

Third, one suspects the pace of life was slower given the apparent acceleration of this pace in the twentieth century (see Gleick 1999; Robinson and Godbey 1997)—and there was less concern with being on time. After all, as I quoted him in Chapter 4, Daniel Boorstin has noted, "Since no one in Rome could know the exact hour, promptness was an uncertain, and uncelebrated, virtue" (1983, p. 31).

Fourth, a greater connection with the past would have been likely, both with one's family and ancestors and with the society's past generally. For example, in -46 Cicero proclaimed, "To be ignorant of what occurred before you were born is to remain always a child. For what is the worth of human life, unless it is woven into the life of our ancestors by the records of history?" (1962, p. 395). Cicero's statement supports the idea of a greater connection to the past, hence a greater temporal depth (Chapter 5), and it also concurs with the arguments in Chapters 5 and 7 about the past's importance in creating a meaningful present (i.e., "the worth of human life"). Connections with the future are more difficult to gauge, although general findings reported in Chapter 5 that longer past depths are associated with longer future depths suggest a significant connection with the future too. Certainly Saint Augustine lived 450 years after Cicero, but by then Christianity had spread and was continuing to spread throughout much of the European and Mediterranean worlds. And Christianity included, of course, a prominent concern with the afterlife (i.e., the transcendental future; see Chapter 5). This concern also suggests a connection with a long-term—on a human scale—future.

Finally, Seneca's advice to fit the times certainly indicates the importance of entrainment (Chapter 6) and suggests the importance of phase strategies for obtaining the best of times (Chapter 7) and managing one's affairs (Chapter 8).

Of all of these, the importance of entrainment may be most similar to the times of the twenty-first century, albeit our century probably provides more times to fit oneself to. As for the rest, in many parts of our world, particularly the industrialized, bureaucratized world, temporal depths are much shallower than those in Augustine's time, the pace is faster, punctuality is a greater concern, life strategies are more monochronic, and time is believed to be not just more fungible, but absolutely fungible (even though that is not true). The



times differ substantially, which is not surprising because the idea that times differ, that all times are not the same, is a principle that has provided an axiomatic foundation for this entire book.

But do these differences and the axiom they reflect lead to other principles about time and life? Do the findings and ideas presented throughout the eight chapters suggest additional principles, additional conclusions? I believe they do, and far too many to identify and discuss. But even though every potential extension can neither be identified nor be discussed, several important principles and conclusions can be inferred from the basic ideas and findings presented so far, some of which became evident to me as I thought, wrote, and thought about what I wrote.

As I reflected about how the findings and ideas might be extended, the principles and conclusions seemed to group themselves into three domains: principles about maintaining a diversified temporal portfolio, principles about temporal balance, and perhaps the most important of all, principles about creation. Sol will discuss these principles by grouping them into sections corresponding to these three domains. And I present them, not as the end of time's story, but as a punctuation mark in that continuing, developing saga.

#### MAINTAINING A DIVERSIFIED TEMPORAL PORTFOLIO

William Judge and Mark Spitzfaden's research demonstrated that rather than a single time horizon, managers dealt with a portfolio of time horizons. Moreover, their research indicated that just as diversified financial portfolios seem to produce the best results for investors over the long term, so too did more diversified portfolios of time horizons seem to be associated with better organizational performance (Judge and Spitzfaden 1995). All time horizons were not the same in these organizations, and from the standpoint of organizational performance, they should not have been the same. Not only do Judge and Spitzfaden's findings provide an example of the general principle that all times are not the same, but they actually provide an empirical basis for extending it to a normative statement: All times *should not* be the same. And this principle applies to many temporal forms, perhaps all temporal forms, not just time horizons or temporal depth.

During eras when time was reckoned more epochally, this principle was well known, as the following eight verses reveal:

To every *thing there is* a season, and a time to every purpose under the heaven:

A time to be born, and a time to die; a time to plant, and a time to pluck up *that which is* planted;

A time to kill, and a time to heal; a time to break down, and a time to build up;

A time to weep, and a time to laugh; a time to mourn, and a time to dance;

A time to cast away stones, and a time to gather stones together; a time to embrace, and a time to refrain from embracing;

A time to get, and a time to lose; a time to keep, and a time to cast away;

A time to rend, and a time to sew; a time to keep silence, and a time to speak;

A time to love, and a time to hate; a time of war, and a time of peace.

[italics in original]

(Ecclesiastes 3:1-8).<sup>1</sup>

Drawing on similar theological authority, Abraham Joshua Heschel (1951) argued that the days of the week were not all alike, that one day should take precedence over all the others, that day being, of course, the Sabbath. Thus Heschel concluded, "The Sabbath is not for the sake of the weekdays; the weekdays are for the sake of Sabbath" (p. 14). Not only is the Sabbath different; it should be preeminent.

But this ancient principle—that not only do times differ, but they should differ—though not extinct, has been slowly vanishing for centuries, perhaps since the thirteenth-century invention of the mechanical clock (see Chapter 1). Yet why does this or any other form of cultural homogenization, though sometimes noted and lamented, receive in the end just a mental shrug of the shoulders accompanied by the attitude that *this is just the way things are going*?

The attitude about biological diversity is far different, as the virtue of such diversity is accepted as a truism. Yet scholars working on the challenge of managing the earth's resources, especially its shared resources, concluded, "Protecting institutional diversity related to how diverse peoples cope with CPRs [common-pool resources] may be as important for our long-run survival as the protection of biological diversity" (Ostrom et al. 1999, p. 282). The "institutional diversity" refers to methods for managing common-pool resources (e.g., the at-



mosphere, irrigation systems, etc.; see Ostrom et al. 1999, p. 279), which various peoples have developed and then institutionalized. They are important because the successful practices among them were developed to deal with resource management of a particular sort and might be transplanted or modified to deal with similar problems in similar contexts. To the extent that such practices are cultural, and anything that is institutionalized has to be, culture reinforces the group's adaptive solutions and helps transmit them across the generations, a function of culture described by Schein (1992, pp. 11-12). In a similar vein, the times and temporal practices people construct are ways of dealing with problems and circumstances, they are ways of dealing with and adapting to the world. Thus the preservation of some temporal role models may provide examples of how to deal with particular circumstances too. Robert Levine stated this point well: "All cultures, then, have something to learn from others' conceptions of time" (1997, p. 187). All cultures.

Yet ever so slowly times have become more similar, more homogenized. For example, in the United States the celebration of many holidays has been legally mandated to occur on Monday in order to create three-day weekends. But in so doing, these holidays have lost some of their distinctness, because one three-day weekend seems about the same as another. Thus the holidays that have become fused with other days into three-day weekends are not as distinct as they once were.

Another example concerns the Spanish tradition of siesta. On a recent visit to the Costa del Sol region of Spain, I learned that this tradition is slowly disappearing, although I observed it still occurring because retail businesses did seem to close from about 2:00 to 4:00 p.m. But if the siesta is disappearing, all that will replace it will be work hours during this period, making a Spanish workday much like workdays in so many other places.

So it was with dismay that I received the news that the siesta tradition was slowly disappearing, because encountering it was one of the reasons that I had come to Spain, and the image of a future in which this famous temporal pattern was no more was depressing. To have encountered a siestaless workday would have been to encounter a day much like those back in the United States, just as encountering the ubiquitous American fast-food restaurant chains abroad does not accentuate the sense that one is experiencing something different and new.

Perhaps these experiences—seeing so many holidays become indistinguishable three-day temporal archipelagos and learning that if I had waited a few

more years I might have missed the siestas—led me to the concept of *temporal conservation*. Conservation is so often thought of in terms of space and material things, such as national parks to preserve the wilderness and practices to conserve energy and natural resources, but it is seldom thought of in terms of retaining temporal practices. The idea is not to save time in the time management sense; rather, it is to save *times*. Or at least to preserve some of them. All of them cannot be retained because doing so would lock life into a temporal cul-de-sac, something as undesirable (see the creation section) as it is impossible.

This is basically what Heschel advocated in the specific case of the Sabbath, and it is worth considering in the case of holidays, hours of the day (i.e., the siesta), and other times too. In this regard, one American holiday may have been spared many of the homogenizing forces that other holidays have faced. That holiday is Thanksgiving.

Thanksgiving is linked explicitly to a Thursday, so it cannot become part of a three-day weekend. Even for those whose activities permit a four-day-long holiday period, such a period is distinctively different from the three-day variety. Thanksgiving Thursday itself has long been associated with a traditional complex of behaviors that includes family gatherings and a meal, the courses of which have traditionally consisted of well-defined foods. And Thanksgiving has so far avoided the commercialization that has become so dominant for Christmas in the United States. Perhaps this is because the day after Thanksgiving has become such a prominent shopping day—for Christmas, the temporal proximity of which may have helped shield Thanksgiving from such an emphasis.<sup>2</sup> Perhaps Thanksgiving remains distinctive because it is the only major American holiday that is linked to a particular day of the week other than a Monday, and that day, Thursday, makes it impossible to create a three-day weekend in conjunction with Thanksgiving. To create a longer holiday period, Thanksgiving must be linked to a different temporal archipelago, thus making Thanksgiving more different from any of the three-day weekend holidays than any of those holidays are from each other.

Somehow, homogenizing the holiday experience defeats the purpose of having a holiday, for a holiday—as its origin as “holy day” reveals—is supposed to be different from the other, the ordinary days. By maintaining its distinctness, Thanksgiving provides a useful model of how a time can be made unique and remain unique. Indeed, holidays should not be the same as ordinary days, and they should not be the same as each other.



Temporal differentiation has several virtues, hence the lesson that all times should not be the same. But disadvantages are possible too, the most obvious being problems of coordination and integration, as described for differentiation in general by Lawrence and Lorsch (1967). Another readily recognizable problem is chronocentrism, the belief that one's times are the true and superior times, vis-à-vis other times (see note 4 to Chapter 6). Lewis Mumford noted this tendency when he observed, "Each culture believes that every other kind of space and time is an approximation to or a perversion of the real space and time in which *it* lives" (Mumford's emphasis; 1963, p. 18). This means chronocentrism often manifests itself in the belief that what is new or more recent is better than what is old or ancient. But despite these and possibly other potential problems, temporal diversification still has several virtues.

One virtue, or at least function, was described in Chapter 1, and that was time's ability to signal in-group and out-group differences (i.e., the different Sabbaths of Judaism, Christianity, and Islam), such differences being signaled to both in-group and out-group members alike.

Another virtue is preparation for temporal change. By definition, change is something different, so if one becomes used to encountering and experiencing different times, *ceteris paribus*, when one's own times change, these changes should be accommodated more readily.<sup>3</sup> A change in times many of us undergo involves the variable of morningness, our relative preferences for doing things earlier or later in the day (see Chapter 7). As people age, they tend to shift toward the morning, toward earlier parts of the day, and those whose cycles and preferences had once been for doing things later in the day change a greater amount than those who had tended toward the morning originally—although both shift toward the morning (Coren 1996b, p. 93).<sup>4</sup> So we will encounter and be forced to deal with temporal changes, changing times such as changes in the morningness complex, and having learned to deal with different times should help one accommodate such changes—but to learn to deal with different times requires different times for one to encounter.

One can encounter different times in temporal estuaries. Robert Levine used this delightful phrase ("temporal estuary" [1997, p. 203]) to describe the regular, indeed continuous intermingling of cultures that have created distinctive times and temporal practices. His example is the region of southern California and northern Mexico spanning San Diego and Tijuana. This metaphor is based on the idea of two different entities coming together and intermingling

or merging. Geographically, an estuary is the region where a river meets the sea, where salt water and freshwater mix. And the cultures of Mexico and the United States have different times indeed, as the discussions of polychronicity (Chapter 3) and pace and punctuality (Chapter 4) certainly made clear.

But temporal estuaries are more than places to encounter different times and practice dealing with them; they are places where new times are born. Vicente Lopez Hved in the San Diego-Tijuana region, and he described the culture the Chicano commuters had developed as an "estuary culture," one with salient temporal components: "In an estuary, nature creates a set of organisms which are not from one side or the other, but completely different. In the same way, people who live on the Tijuana border have this kind of estuarian time. It's not a Mexican time. It's not an American time. It's a different time" (Vicente Lopez as quoted in Levine 1997, p. 206).

This wonderful use of metaphor suggests that cultural estuaries can be incubators for many new cultural forms, including new times. The San Diego-Tijuana area has produced just that, and other areas of the world show similar promise. For example, the Costa del Sol region on the Mediterranean Sea in Spain was mentioned earlier in this discussion, and it is a region that is undergoing fundamental change. The creation of the European Union has made it possible for many northern Europeans to retire in this area of Spain, or at least spend their winters there. And the close proximity to Africa—one stands on the Rock of Gibraltar and sees the mountains of northern Morocco—has been a source of not-always-friendly contact for millennia, contact that continues and grows today. The intersection of these cultures in the Costa del Sol makes it a potential incubator too, as other areas likely do elsewhere around the world.

So a virtue of different times, of having times that are not the same, is that contact between them can produce yet other times, new times, times whose possibilities would not otherwise have been anticipated or explored. And because such new times would be the result of contact between parent cultures, visitors from the parent cultures who encounter the new times might be less overwhelmed by them because they would likely contain temporal elements similar to those in the parent cultures' times. If so, these kinds of encounters with new estuary times might lead to the greatest learning, or at least greater learning than if someone from one parent culture visited the other parent culture. This conclusion follows Alexi Panshin's logic in his analysis of science



fiction, an analysis in which he argued that the greatest understanding comes from combining something familiar with something unfamiliar rather than combining either the familiar with the familiar or the unfamiliar with the unfamiliar (1968, p. 2). Since estuary time would combine familiar elements from one parent culture with unfamiliar elements from the other, there may be enough similarities so that visitors from either parent culture would be able to understand what was going on and learn from it rather than either seeing nothing new at all or being completely confused. The key factor determining which of these three outcomes results from contact with the estuary time may be the balance of novelty and similarity in the new time.

## BALANCE

Time can take many forms, but which of its forms are best? The answer already suggested in several chapters is, it depends. So just as the universal approach of the early management theorists (e.g., Fayol 1949; Gulick and Urwick 1937) was abandoned generations ago, one would expect that the optimal mix of temporal structures and practices will vary by individual, by culture, and by context. An important example is the relative balance given to the past, the present, and the future; a description of the balance among these three was written early in the nineteenth century.

Alexis de Tocqueville (1945a, b) wrote one of the most influential descriptions of American life ever published, *Democracy in America*. Based on his travels in the United States during 1831 and 1832, de Tocqueville developed a detailed sense of Americans in the early 1830s, and one of these details was their attitude about the past, present, and future. He wrote of the typical American at this time: "He is acquainted with the past, curious about the future, and ready for argument about the present" (1945a, p. 32<sup>^</sup>). The positive tone in de Tocqueville's description indicates the author's favorable appraisal of these connections, just as it indicates a relatively even balance among the three as well.

De Tocqueville's description raises two issues. First, is it necessary to assign importance and attention to the past, present, and future simultaneously? Second, is an even balance among all three always the right balance? These questions will be examined in turn.

As data presented in Chapter 5 indicated, the past component of temporal depth in American society was very shallow, at least by the end of the twentieth

eth century. Yet as was argued in Chapters 2, 5, and 7, the past is crucial for making sense of the present, for giving it meaning. The past also provides a critical foundation for making decisions about the future. As Richard Alexander noted, "We know intuitively that to understand how we came to be may tell us things of value about modern human activities, especially those that perplex and frighten us" (1990, p. 1). So the past not only should not, but cannot be ignored. And at least some approaches to planning and large-scale change such as search conferences and future search follow this rule by systematically including attention to the past and history in their methods (Bunker and Alban 1997> PP. 35-36, 47-410).

As for the present, in twenty-first-century America little concern need be given to worries that the present will not be emphasized. For as Lewis Mumford noted about mid-twentieth-century America, "And in fact no generation before our own has ever been so fatuous as to imagine it possible to live exclusively within its own narrow time-band, guided only by information recently discovered; nor has it ever before this accepted as final and absolute the demands of the present generation alone, without relating these demands to past experience or future projects and ideal possibilities" (1970, p. 282). It would seem that the generation Mumford wrote about is no longer alone in holding this chronocentric worldview.

Ironically, even though the present receives attention, perhaps too much attention as a general temporal zone, the kind of attention it receives may be the wrong kind, a point that will be discussed later in the section on creation. But would it be wrong to completely ignore the present and completely focus on some mixture of the past and future? A number of reasons can be given for saying that it would be a mistake to do so, one of which has been given by James March.

March focused on organizations and argued that organizations must do two things: explore new possibilities and exploit old certainties (1991, p. 71). To March, exploration involved long-term future perspectives, whereas exploitation was much more short-term, short-term enough that it is reasonable to regard it as a concern falling in the present. And March used the different temporal depths associated with these two activities as part of his explanation for why organizations may focus too much on exploitation: "The certainty, speed, proximity, and clarity of feedback ties exploitation to its consequences more quickly and more precisely than is the case with exploration" (p. 73). These rea-



sons help explain why managers frequently complain of having trouble finding time to look at the big picture (e.g., Hymowitz 2001). So because exploitation, which includes "refinement, choice, production, efficiency, selection, implementation, execution" (March 1991, p. 71), is necessary and because exploitation takes place in the present, the present cannot and should not go unattended. Although March's focus was on organizations, this conclusion should apply to other groups, and to individuals as well.

But what of the future? What is the case that it is important and deserving of attention in its own right? This case can begin with the received wisdom presented in a proverb: A society grows great when the old plant trees in whose shade they know they shall never sit.<sup>5</sup> And a remarkable, and literal example of this proverb's claim can be found in the society of scholars known as Oxford University. As one of the world's most famous and prestigious universities, Oxford has clearly grown great. And trees planted by those who knew they would never sit in their shade may have played a role: "The oak beams in the College Hall of New College, Oxford, needed replacing in the nineteenth century, so the college cut down some oaks planted in 1386 for that express purpose" (Benford 1999, p. 26). The trees were planted in anticipation of a need centuries in the future—what turned out to be five centuries in the future. Thus Matsu-shita's 250-year plan (see Chapter 5) would not have daunted the fourteenth-century dons of Oxford. But one can contrast this concern about the future, the deep future, with the temporal depths described in Chapter 5 (see Table 5.1), most of which seldom extended beyond ten years into the future.

So in the age of the mayfly and the nanosecond, the Long Now Foundation's attempt to establish an organization focused on a clock and a library that will endure for the next ten thousand years seems even more remarkable (see Brand 1999). Excepting religious organizations whose concerns can be linked to the eternal, and government projects to store radioactive waste (see Chapter 5), the Long Now Foundation's attempt to span ten thousand years likely exhibits the concern with the deepest future depth of any secular endeavor. I do not include the deep space probes attached to which are messages that may be encountered by alien species or humanity's descendants hundreds of thousands, even millions of years from now. I do not include them because messages were not the probes' primary purpose, whereas the Long Now Foundation's clock, library, and the organizational apparatus to support them are the primary purpose of this endeavor.

As these examples indicate, a concern for the future, especially the deep future, seems associated with profound decisions and profound consequences. Thus at the individual level, Alan Straithman et al. found that what they called "consideration of future consequences" (1994, p. 742) had significant effects on actions people favored or opposed, depending upon whether the effects of those actions would occur in the near or long-term future. As would seem to follow, people whose focus is on the short-term future were influenced more by information about what would happen in the short term, and people more oriented to a longer-term future were influenced more by information about what would happen in the long term.

Since the short-term future often is nothing more than a focus on the present, Straithman et al.'s (1994) results indicate that a short-term future focus is not enough; such people need to believe that they will sit in the shade of the trees they plant. At least some people need to be concerned about things further ahead, about trees in whose shade they will not sit for decades, perhaps never. For, as March noted in his distinction between exploitation and exploration, exploitation is about the short term, which is often really the present concern, and involves matters other than exploration, the long-term concern. Both exploitation and exploration are important, which means that neither can be ignored; hence, like the present, neither the short-term nor the long-term future should be ignored.

For this reason I propose a new way to conceive the future, and that is to think of the future as a *temporal commons*. Garrett Hardin published an influential article, "The Tragedy of the Commons" (1968), about destructive tendencies that may occur over the long term when individuals and groups pursue self-interested behaviors when using a commons (a jointly owned resource). A recent examination of large commons, sometimes planetary commons, revealed that the outlook was neither as bleak nor as simple as Hardin's conclusions indicated (Ostrom et al. 1999).

Hardin's original article painted a grim, Malthusian portrait, but Ostrom et al. (1999) noted that since Hardin's original article was published research has revealed that people and groups have developed many approaches for managing commons successfully, sometimes for thousands of years, and much can be learned from these approaches for managing commons in the future. In the case of these commons, the key was to study what had been done, what had worked, and what had not, and by that to reveal a much wider range of possi-



bilities. Hardin got people's attention; Ostrom et al. pointed toward realistic solutions and possibilities.

Ostrom et al. could point to possibilities because of research, and by extension, if we intend to manage, or at least make strategic choices about the temporal commons, much more research is necessary. For example, disturbing data were presented in Chapter 7 questioning the wisdom of shifting into and out of daylight saving time annually. When governments decided to start making these changes early in the twentieth century, those decisions were made based on certain presumed positive outcomes. No systematic research was done until late in the century about the costs of those changes. But only such research can help us make an informed strategic choice about whether we want to retain the practice of daylight saving time as part of our temporal commons. I am persuaded that we should not retain it, albeit I could be persuaded otherwise by research yet to be conducted.

As concluded in Chapter 5, the minimum of humanity's goals is to develop futures in which humanity can live, but the minimum would be unacceptable to most of us because it would certainly allow a Hobbesian world in which life was "solitary, poore, nasty, brutish, and short" (Hobbes 1968, p. 186). We can do better than that, and we should aspire to do so. We should do so for ourselves as well as for our children, for the descendants of the Iroquois seven generations hence, for Matsushita's employees in the twenty-third century, for all who will labor, love, and live under the same sun that has nourished humanity and its hominid ancestors for millions of years. And perhaps even for humanity's successors, who may someday labor, love, and live under the warmth of more than a single proximate star.

We cannot guarantee any future to subsequent generations; indeed, we cannot even guarantee our own future. For those futures will always be determined in part by their residents. But they will also *ht partly* determined by us. And this is why the concept of the future as a temporal commons is so important. It is also a major reason why studying time is so important: We are the current stewards of that temporal commons. To conduct that stewardship intelligently and wisely, we need to know more about time than we know currently. Failing to develop a sound knowledge base about one of humanity's, indeed, the cosmos's most fundamental phenomena limits our ability, individually and collectively, to make informed decisions about our stewardship.

In Chapter 8 the discussion addressed the issue of regret, which seems to

have been associated with the things not done. So not to study time has the potential to become a major collective regret for future generations, regret for the knowledge that will not be available as well as for the way such knowledge might have influenced stewardship decisions. Although we know some things, we are really just now learning how much there is to learn about how times differ and how those differences affect our lives.

So given what we know to date, it is hard to disagree with a general prescription to pay attention to all three temporal foci, but is an absolutely even balance among the three universally best, a balance apportioning equal importance and attention to each component of this temporal trinity? This is harder to say, but one suspects not (e.g., Brown and Eisenhardt 1998). As individuals and groups alike proceed through their activities, through the course of their life cycles, one suspects that what makes up the optimal balance changes.

Some balances are better than others, and some are outright disasters, as Peter Drucker recognized: "The all too common case of the great man in management who produces startling economic results as long as he runs the company but leaves behind nothing but a sinking hulk is an example of irresponsible managerial action and of failure to balance present and future" (1974, p. 43).

James March argued for a balance of basically the same two foci in noting that exploitation and exploration need to be balanced.

Others have called for changes in the balance regarding specific issues. For example, the president of Mexico, Vicente Fox, noted soon after his election, "The United States has always tried to resolve migration, drug trafficking or trading problems on a day-to-day basis, and we will never solve it in that way. We need to think long-term, 20-30 years from now, where we want to be" (Vicente Fox quoted in Price 2000).

So how can the temporal foci be balanced? It seems unlikely that a satisfactory balance can be achieved if the past, present, and future are not connected, for as has been argued in several places (i.e., Chapters 5, 7, and 8), the foci influence each other. Paule Marshall provided yet one more statement of this point in her novel *The Chosen Place, The Timeless People*. "But sometimes it's necessary to go back before you can go forward, really forward" (1969, p. 359). And Lewis Mumford was even more forceful: "But the notion that the past, instead of being respected, must be liquidated is a peculiar mark of the megatechnic power system" (1970, p. 282).

Yet recognizing the need for connections to work toward a reasonable bal-



ance, how can one develop such connections? An image I saw time and again while traveling across the Serengeti may help. One way to describe the ecology of the Serengeti is that some animals are always looking for food while others are always trying to avoid becoming it. What is so remarkable about the Serengeti is that so much of this occurs in plain view so much of the time. And part of this perpetual drama is the behavior of a well-known grazer, the zebra.

Zebras are social and are normally seen in herds, which provides survival value for them. While a herd of zebras grazes, a few individuals in the herd usually pair up and stand side by side. But they face opposite directions. So they are side by side, but one is pointed east, the other west. And by this they serve the herd as lookouts for the big cats, especially the lions. By standing as they do, they can view most of the horizon, and if they see a potential threat getting too close, the lookouts start running and their running alerts the rest of the herd, which starts to run along with them.<sup>6</sup>

But how effective would this system be if both members of a zebra lookout pair looked in the same direction? They would see to the horizon in one direction in greater detail, but nothing in the other direction. Clearly the *balanced* approach of being oriented in opposite directions is a better solution. If it did not work passably well, the lions would have caused the zebras to become extinct long ago.

To me the zebras are a metaphor for balancing the past, present, and future. The zebras who graze while a few stand lookout represent the present, a present that is possible only because some of them take their turn looking into the distance in two different directions, the two different directions representing the past and the future. And perhaps the metaphor extends further than that, because most of us most of the time probably do not devote much attention to matters beyond shallow pasts and futures.<sup>8</sup> Deeper times tend to be left to temporal specialists like historians, archaeologists, futurists, and strategic planners. But time is too important to be left to such temporalists alone.<sup>7</sup> We may have abdicated too much of our temporal responsibility to the strategic planners. So a reasonable reform might be to reassume a sporadic interest in the things that were and the things that may yet be, and take our turns doing so just as the zebras do. Who knows what some of us might see if we occasionally looked outside of now?

And getting oneself to do so may not require a huge change effort. Kathy Marko and Mark Savickas (1998) found that a modest counseling intervention

(i.e., about two hours' worth of activity) produced a significant increase in participants' orientation to the future and an increased sense of continuity between the past, present, and future. Although their data did not allow them to estimate how long these changes would last, the results are intriguing. Of course, El Sawy's (1983) experiment also showed that future temporal depth could be modified easily and quickly—at least in the short term (see Chapter 5).

All in all, I suspect the balance in temporal focus would improve if from time to time people would think mindfully about things that happened before they were born and about what things may be like after they die. We do not like to think about death, but thinking about death is not the point. The point is what the world will be like after that. For instance, will there be any trees in it that we planted and in whose shade our great-great-grandchildren may sit? To me this is a pleasing image, not a morbid one. In fact, the image creates a kind of connection to that time, a connection to what may be and how we may make it be. What is imagined may never happen, but we will never know. The habit of thought is key. And perhaps to encourage that habit of thought, in June 2000 the Norwegian government asked the citizens of Norway to devote one hour of a working day to thinking about time and how they use it (Kahn 2000).

As important as it is to balance the three temporal foci, the other temporal forms must be balanced as well. Polychronicity is fundamental, for example, and as described in Chapters 3 and 6, when people diverge from each other too much in terms of their polychronicity, especially when they deal with each other in close quarters, it is challenging for them to get along. What, then, would be the best polychronicity strategy from the standpoint of balance?

There seem to be at least two viable possibilities. One is flexibility; the other is moderation. Edward Hall (Bluedorn 1998, p. 114) noted that some people seem able to adjust to different times daily, if not more frequently, thus to fit the times as Seneca advised. But Hall also noted that other people either could not do this or could do so only to a modest extent. Being able to be this flexible is thus one way to balance polychronicity by, in effect, adopting an in-phase entrainment strategy; that is, staying in phase by adjusting to the predominant polychronicity patterns one encounters.

But as Hall noted, people vary in this flexibility, which brings us to the second answer. If one had to choose just one point along the polychronicity continuum as one's general polychronicity pattern, from the standpoint of balance,



the midpoint on this continuum, or better yet, the average of the patterns one will typically encounter would seem most balanced. Why? Because at the average or midpoint people will, almost by definition, be closer to the patterns they will encounter more of the time than will those at any other position along the continuum. This also means that people who can be flexible and adjust to other polychronicity patterns will have smaller adjustments to make, on average, than will those at any other position on the continuum. And making smaller adjustments would presumably be easier and less stressful overall than making larger ones. But as Hall noted, some people are more flexible than others; hence they have more choices about polychronicity and other temporal factors such as speed.

For speed too should be balanced. Problems arising from doing things too fast were discussed in Chapters 4 and 7, and the existence of problems suggests that a proper balance would improve things (see Freedman and Edwards 1988). Perhaps this is a reason the syndrome of behaviors surrounding doing so many things too rapidly has been dubbed "hurry sickness" (Gleick 1999, p. 9). This sickness has deep roots, for de Tocqueville detected a major strain of it during his visit in the 1830s: "He is so hasty in grasping at all [goods] within his reach that one would suppose he was constantly afraid of not living long enough to enjoy them" (1945b, p. 144), and "He who has set his heart exclusively upon the pursuit of worldly welfare is always in a hurry, for he has but a limited time at his disposal to reach, to grasp, and to enjoy it" (1945b, p. 145).

De Tocqueville also observed a corollary to these points about gratifications: "the means to reach that object must be prompt and easy or the trouble of acquiring the gratification would be greater than the gratification itself" (1945b, p. 145). It also seems that aspiring to the prompt and easy extends beyond the economic to the moral sphere, where it is called cheap grace.

Dietrich Bonhoeffer coined the phrase and wrote of cheap grace as "grace without price; grace without cost!" (1959, p. 35). In the words of a contemporary writer, cheap grace is "salvation, or balm for the spirit, that requires little work and absolutely no sacrifice" (Oppenheimer 2000). It is the redemptive version of fast food, although that is unfair to fast food, because fast food is real food. Cheap grace, conversely, is not even real. It is a facade, a melange of kitschy artifacts and sentimentality. It is buying a bracelet rather than taking the time to learn what the bracelet means and then behave accordingly, behavior that traditionally involves "a measure of sacrifice" such as "charity, self-examination

and abstention from some worldly pleasures" (Oppenheimer 2000). As Bonhoeffer described it, cheap grace is "forgiveness without requiring repentance" (1959, p. 36).<sup>8</sup>

The issue of cheap grace connects most directly to the theories of justice in the study of ethics. According to the theories of justice, if one person injures or harms another, the person causing the injury must make restitution to make good the injury (Cavanagh, Moberg, and Velasquez 1981, p. 366). For example, my son John once pulled out of a parking space and backed into another parked car. He got out of his car and saw that the collision had damaged the other car significantly. The owner of the damaged car was not in the car, nor was anyone close by who seemed to be walking toward the car. John could have driven away, and no one would have been the wiser. Instead, he wrote a note that explained what had happened and included his name, address, and phone number for the owner of the damaged car; he placed the note under one of the damaged car's windshield wipers. He did this even though he realized his insurance rates would go up as a result of the claim the other driver would file (and they did, by several hundred dollars annually). John's grace was not cheap, but it was real.

Cheap grace lessens the quality of the moral environment, just as the desire for quick fixes in general often lessens the quality of the results obtained. The quest to do too many things too quickly is a sickness indeed. And slowing down may not only help restore balance to the pace of life, but also help restore balance with the temporal foci by aiding in their reconnections. For example, Neil Altman described his experience in the much slower paced society (compared to the United States) of southern India as leading to "a sense of continuity with other times produced in me by the slower pace" (Neil Altman quoted in Levine 1997, p. 204). Somehow slowing down led Altman to connections with other times. So if slower paces lead to more connections, do faster paces sever them?

These considerations should help us make better choices. For in the United States and other parts of the world the realistic choice seems to be between two options described in Chapter 7, options about which my preference should have been clear. I repeat the two options here as a reminder that a choice is possible: "Do everything faster!" (Cottrell and Layton 2000, p. 34); or, "Knowing when to think and act quickly, and knowing when to think and act slowly" (Robert Sternberg as quoted in Gleick 1999, p. 114). The choice is yours.



## CREATION

John Hassard noted that "*time is a basic element of human organization*" (Hassard's emphasis; 19B9, p. 80). Moreover, '*7/ is the veryfact of mans biological and thus ultimately finite existence that compels him to 'organize' time* [Hassard's emphasis]. As time cannot be conserved nor cultivated, it must be organized. The finite nature of human-time means that it must be sub-divided and prioritized. Because of this, social as well as biological agencies must be *created* in order to harness temporal potential and make it productive [emphasis added]" (p. 80).

Times must be created "to harness temporal potential," to develop temporal possibilities. Some times, some temporal forms, have already been created. For example, Heschel wrote of the Sabbath, "The seventh day is a *palace in time* which we build" (Heschel's emphasis; 1951, pp. 14-15). Note the phrase "which we build." Building is creating, and as the material about temporal estuaries suggests, other times are likely to be created still. Yet to what ends will they be created? Just because something can be done does not mean it should be done, which is one of the most important principles of all.<sup>9</sup> So for what reasons should times be created? Perhaps one answer can be found in child's play.

Many years ago I called home from my office at the university, and my son Nick answered the phone. It was around 4:00 p.m. on a fall afternoon a few weeks after school had started—for both of us—and when I asked what he was doing, he replied, "I was playing." After the conversation I experienced two emotions. The first was joy over the transcendent condition of simple, unstructured play, play with the freedom to go wherever one wants, an activity that is clearly one of the best of times.

But juxtaposed with this was another emotion, one I felt just as powerfully. That reaction was a melancholy sorrow, because I realized that soon in his life such activities and statements would cease. Indeed, I never heard him say "I was playing" again. This wistful reaction reflected my knowledge that progressing into adult life in late-twentieth-century America meant leaving play behind, that at best American adults are allowed to play only within narrowly bounded conditions. After work we are allowed to play sports recreationally, but compare memories of pick-up games in your youth, sports or games of any kind, with the bureaucratically templated—location, hour, and rules—play of adults. Which was more intrinsically satisfying? In which did you experience

more joy? So my melancholy reaction was really a form of mourning for both myself and my son; for myself, because Nick's statement led me to realize that the phase of my life in which pure play was permitted, even encouraged, had passed long ago; and for Nick, because I realized that phase was soon to pass. This is one of the worst of times because it leads one to realize that some of the best of times were ending and would no longer be a part of one's life. Bid this time return indeed.

And what is the goal of play? Peter Berger identified it: "Joy is play's intention" (1969, p. 58). Play is the antithesis of alienation, for it is done for its own sake. The joy does not happen at the end of play, it happens *during* play. And one suspects that spontaneous, nonbureaucratic play may be the most joyful of all. For when one's play is organized by others, the others tend to attach to it goals other than joy, goals such as learning or winning. To the extent that satisfaction, the shadow of joy, is contingent on outcomes rather than the activity itself, by that margin the activity differs from true play. As Sebastian de Grazia noted, "Play ceases when at the player's shoulder pallid necessity appears. If starvation or death is the outcome of a contest, then it is neither game nor play" (1962, p. 374). Yet true play by adult hominids is not quite legitimate.

Perhaps if Ecclesiastes 3 had included a verse indicating a time to work and a time to play—and notice how that order seems so natural, work first, then play, a time for play and a time for work seeming to elevate play to too prominent a position—play would have greater legitimacy. Play can certainly be justified instrumentally as an inexpensive way to practice for the future, an interpretation that gives play profound evolutionary significance (Alexander 1990, p. 7; also see Chapter 8). But the very act of giving play this type of instrumental justification distracts from the point that play is its own justification.

Ecclesiastes may not have mandated a time for play, but another prescription from the Hebrew Scriptures comes close, at least mandating a form of time that might be play's first cousin. The prescription is for a sabbatical *year*, and it is presented in Leviticus 25:3-4: "Six years thou shalt sow thy field, and six years thou shalt prune thy vineyard, and gather in the fruit thereof; But in the seventh year shall be a sabbath of rest unto the land, a sabbath for the Lord: thou shalt neither sow thy field, nor prune thy vineyard." Thus was ordained a sabbath year of rest for both the land and the people—though what they were supposed to eat is not addressed. The word *sabbatical* in the phrase "sabbatical year," which is mainly an academic practice in modern times, is et-



ymologically derived from the word *sabbath*. And both of them refer to distinct times created by human beings, times created and constructed to be different from other times. Although not really prescribing play, the idea of both a sabbath day and a sabbatical year is that they are times for doing something other than one's regular work. And perhaps something like a sabbatical is the closest to play that the bureaucracies adults inhabit can deliberately structure, a practice Theodore Zeldin (1994, pp. 355-56) suggests may become a more important institution in organizational life. And as regards pure play, adults will apparently have to do that on their own. But having permission to do so would help.

All in all, perhaps the cumulative moral to be taken from all of these principles is that times should differ, but those differences need to be balanced; and to achieve a better balance, new times will need to be created. But as always the questions are, which times, which balance? Emily Dickinson noted, "I dwell in Possibility" (1960, p. 327), as do we all, because today was one of yesterday's possibilities, only some of which were desirable. The findings presented throughout this book can provide some guidance about what can happen, about the possibilities, and even about what may happen if certain choices are made, but they cannot tell us what we should want to happen. Those criteria come from other sources.

Four hundred years ago Shakespeare wrote, "You waste the treasure of your time" (*Twelfth Night*, ii, 5). But treasuring time is not the point, as important as that point may be. The point is the very meaning of life itself, for the meaning of life is in striving to create times worth living, times worth revering, times worth treasuring. This is the point of studying time.

## Appendix

### The Temporal Depth Index and Its Development

The Temporal Depth Index (TDI) is a measure of an individual's future, past, and total temporal depths (i.e., the temporal distances into the past and future that individuals and collectivities typically consider when contemplating events that have happened, may have happened, or may happen; see Chapter 5). The TDI is presented in this appendix, as are instructions for scoring it. An account of the TDI's development, including pertinent psychometric data, is then presented.

#### BACKGROUND

When this development effort began circa 1990, my motivation for doing so was to develop a scale or scales that would (1) consist of multiple items (to promote psychometric quality) that could be combined into a scale or index score; (2) assess the temporal distances into both the future and the past directions (i.e., temporal depths) individuals typically considered; (3) provide the respondent with a format that could be responded to easily and quickly; and (4) generate responses in a form that could be easily entered into computer databases (i.e., statistical program or spreadsheet files) with little or no coding by the researcher. In my view, when I began this development effort no measure existed that met all four of these criteria. Most studies of temporal depth (usually labeled time horizon) dealt exclusively with the future direction and measured the depth of that horizon with a single