

Ephraim Ben-Baruch, Professor
Department of Education
Ben-Gurion University of the Negev
Beer-Sheva, Israel

Human Time

Our Time Attitudes are Predominantly Culture Bound

The subject of this paper is neither about “time in physics” (absolute or relative) nor about time in biology (biological clocks). Rather, this paper is about human, social, and cultural time; it will be concluded with some thoughts on time in education.

The way a person, a group, an organization, a nation, and even an entire culture conceives of and relates to time constitutes an important dimension for the understanding of personal or collective behavior and action. Persons, groups, and organizations are born and develop within a society and its culture. Every culture can be characterized by its particular attitude toward time. The western world holds that “time is money.” South American tradition is “mañana,” that is, why not postpone

everything for tomorrow. An old Bedouin Sheikh will warn you that “hastiness is from the devil.” In the Far East, we find “nirvana,” which means detachment from time and space to search for peace and integrity.

One particular element of the prevailing time attitude in every culture is the way the future is seen: as predetermined; as unalterable destiny (so why try?); as fatalistic; or as open, that is, deeds and omissions will shape an individual’s future. All cultures and, especially, religions have been and still are preoccupied with this question, each giving a particular answer. Judaism’s answer, for example, aims to incorporate both attitudes: “All is foreseen; nevertheless, options are given and allowed.” Protestant ethics advise: “Before you ask God to help you, do everything possible to help yourself.”

However, we do not absorb and internalize our culture’s time attitudes only. All people are influenced by their unique, personal experiences of time within the culture as well. The interaction between the surrounding cultural experience and the unique personal experience of time accounts for the common time attitude, as well as for the differences within the same culture. This interaction likewise explains the exceptional, different behavior around time of some individuals within a culture.

The Components That Influence the Time Attitudes of Cultures

Studies in Cultural Anthropology describe at least five main components that can be seen as answers to five questions:

- 1) What is the **sequential structure** of events? How should things and events evolve? What are the temporal standards of what comes before and after? Do these unfold in a strictly linear way, as found in the west, or in any other, non-linear way?
- 2) What are the prevailing guidelines for the **duration** of events, activities, and so forth. How long will each last? When is the end?
- 3) What is the routine tempo or pace for the evolution of activities and things? What is the rhythmic sequence of events and activities, which helps predictability?
- 4) How does the **synchronization** of all members' activities work? Who is in charge of the work? All social action requires some kind of synchronization; otherwise, chaos will prevail.

5) Finally, what is the predominant **attitude** in the culture regarding the **past, the present, and the future**? Cultures assign different weights or importance to some of them and focus primarily on one. Any such focus is a guideline for behavior and decisions at crossroads.

Thus, Anthropology teaches that the time attitude of any culture is a function of the specific blend of the answers given to these five questions.

Let me add a few words on the last component -- how past, present, and future are seen. In the material world of substances, time is one of the four dimensions that both can determine the place of an object in space and trace its motion. In this material world, time is one dimensional, because all that exists, exists only in the present -- a constant but continuous present. This is also true of us -- humans. We, like any material substance, exist physically (our bodies) -- always and only in this constant, but continuous, present. Bodily, we can neither go back to our past, nor jump into our future. But, because we have memory as well as goals and wishes, we can do that mentally.

The human mind divides time into three parts, not only because we cannot move in time, but also both to introduce some order into an apparently chaotic world and to understand it. Causality, for instance, cannot be grasped without the notion of past, present, and future, because the cause must come before the effect. Moreover, three-dimensional time makes it possible for us to retain our own identity from childhood through old age, despite the changes through which we live. This is the very essence of human consciousness.

The Three Human Time Dimensions are Meant to Serve us in our Present

We live only and constantly in the present. We receive impressions from the surroundings, we meet people, we enter into situations, we face dilemmas, and we make decisions and choices at every moment of our lives. We decide what to do now, what is right for us, how to avoid something, and so forth. What guides us in making all these choices and decisions?

Among other factors, our past and future come to our aid. The past provides us with understanding, interpretations, and explanations of

situations we are experiencing now. These are stored in the wealth of our past experience and the lessons we derived from it, whether explicit or implicit. They guide us toward understanding the new situation, making choices, deciding to trust or not, and how to behave. The past is recruited to help us in the present. The future is recruited as well. We use the future (in other words, our goals, wishes, endeavors, and fears) to help us examine our options of behavior and other choices to ensure that they will serve our goals well or avoid our fears.

All these are illustrated in the attached pages on Human Time. For example, if a child has learned from past experience that “grownups don’t keep their promises,” that child will hesitate trust a new promise, and vice versa. Furthermore, the past is always with us -- part of it imposed, part of it chosen, either for personal, collective, or cultural reasons. It is stored in the gray cells of the brain (memory), in our habits (social and cultural norms), and in our libraries, museums, and so forth (culture). We cannot change the facts of the past. What we can and often do is examine these facts from a different perspective or point of view, giving these facts a new interpretation or meaning. We do that not only when studying history, but also when reviewing our personal lives.

Sometimes we do this to serve some future need.

Future orientation is important: Without a vision of the future (goals, wishes, etc.), we may exist in a timeless environment in which control over our lives is left to blind chance and statistical probabilities. When we have goals for the future and act to achieve those goals, we replace probabilities with possibilities.

The Ways in Which We Perceive Time

This paper will not try to answer the question of this elusive and intangible thing we call time. The philosopher and the poet, the parent and the child, the scientist and the layman have all asked the question. Answers have been given, but they are many and different, because different people, in different cultures, settings, ages, and sciences perceive time differently. Time is still an enigma, and even today, we may agree with Saint Augustine, who wrote in the 4th century: “If nobody asks me -- I know what time is, but it if have to explain it to anyone -- I don't know.”

So, my next question is easier:

In what ways do we perceive time?

Intuitively and from common sense, we know two ways:

- 1) Time is perceived as **cyclical** and repetitive, as in nature.

- 2) Time is perceived as **linear**, as a river that flows in one direction only.

These two are not necessarily mutually exclusive. They can well co-exist. Some activities are performed according to cyclical time, and others are performed according to linear time. However, most often one of the two is predominant. I shall elaborate on these two.

The Cyclical Perception of Time is, to some degree, inborn and, hence, primary and archaic. Nature moves in cycles: day and night, the seasons of the year, and so forth. Time is reversible, recurring rhythmically and repetitively. Thus, past, present, and future make less sense. In the genes and DNA of all living creatures and plants, various cycles are embedded. These cycles function as biological clocks that govern and regulate activities and development. When the time comes, birds migrate, bears

hibernate, salmon swim upstream, girls become women, and so forth.

In addition to the partly inborn temporal behavior, we learn everything else through the process of socialization into the culture.

What impact on human behavior may a predominantly cyclic perception of time have?

- 1) The peaks and valleys of the various cycles make more sense than past, present, and future.
- 2) Time is perceived as reversible -- time is not a resource, and, even if it were, it is certainly not a scarce one.
- 3) The pace of life is dictated by the various cycles -- long or short, intensive or extensive. In general, the pace of life is slow.
- 4) We have little or no control over many of these cycles.
- 5) Cycles contribute to and even provide for a sense of security: we know that after the winter, spring will come.

The Linear Perception of time is an outcome of both our historical and scientific understanding and the limit of the length of human life. This perception is not inborn, but it is abstract and learned. Newton gave the linear perception of time its classical definition: "The abstract, true and

mathematical time of itself and from its own nature flows equably without relation to anything external.” (Einstein has shown Newton was wrong.) But Newton had in mind only the astronomical (perhaps true) time. Human time is different. It cannot disregard the cyclic time.

Contrary to cyclic time, linear time flows in one direction only (is irreversible).

What is the impact of predominantly linear time on human behavior?

- 1) The present moment clearly divides the flow of time into past and future.
- 2) Inasmuch as time flows at an equable pace, we can create and use universal units to measure time: seconds, minutes, hours, and so forth.
- 3) Time is seen as a valuable and scarce resource, which needs to be used wisely, by planning, setting future goals, and so forth. This provides for some limited control over time.
- 4) Linear time, contrary to cyclic time, may raise anxiety, because one never knows the future.

All cultures have some combination of the two times, but most often, one

of them is dominant. The test for which is dominant can be traced to the crossroads of decisions that affect the future.

Is There a Third Time Perception?

I dare to suggest that, in our modern, industrial, high-tech, and competitive society, a third time perception appeared, prospered, and, to a growing degree, is replacing the other two. I suggest calling this third time perception: “Time is part of the Task.”

Our society is characterized by a strong demand for achievement, both at work and school. Society uses elaborate systems of punishments and rewards to reinforce this achievement orientation. Achievement means that something is not “here and now,” but must be reached. In other words, achievement implies a future orientation as well as setting goals and activities to realize the achievement. Moreover, it requires the ability to postpone immediate gratification for the sake of future benefits.

But all this is not new and could be part of the linear time perception.

What is new, then?

Our competitive, modern society, as compared with the previous traditional, pre-industrial one, not only increased the pace of life. It has linked, strongly and inseparably, two things that were, if they were at all, only loosely linked in the past. These two are:

- 1) The task (any unit of work or study)
- 2) The time allotted by society for the accomplishment of this task

In our society, individuals are less and less at liberty to determine how much time is needed for any given task. Society itself makes that determination, because of competition pressures that set standards of time permissible for the accomplishment of almost every task. At work, this is accomplished by setting norms of production; in schools, standards are set by allocating strictly determined units of time for each unit of study. Thus, Task and Time are fused together inseparably. Those who manage to finish the task within the time prescribed by the society, through its various organizations, are seen as successful, as achievers. Those who have not, are seen as failures. Figuratively, we can call this syndrome of coupling together task and time “the principle of the hourglass.” It is as if invisible hourglasses are turned upside-down whenever we start a task, any task. The amount of sand (or time) in these hourglasses differs

according to the nature of the task, but the hourglasses all rush us to keep up with them. We internalize this principle, create our own hourglasses, and often push ourselves even faster. Just think how many various hourglasses are turned upside down for each of us -- every day, week, and month. Is this alarming?

In traditional society, the main, if not the only criterion, for assessing achievement was the quality of performance of the task. In our society today, a second criterion -- Time -- has been added. Moreover, our society presses us to enlarge the task and shorten the time allotted for its accomplishment. More and higher achievements are required in a shorter time. The importance of time for assessing achievement, therefore, grows often at the expense of quality of performance. If, as a rule, "making-it-on-time" becomes more important than, or more imperative over, "making-it-good," we face the danger of cultivating mediocrity instead of excellence: We give up quality for the sake of time. This danger already exists both at work and at school and should be carefully addressed.

In any case, time as part of the task, or the hourglass principle, seems to be gaining a stronger hold in our society, not just joining cyclic and linear times, but often replacing them. It is definitely not inborn, only learned.

However, it is not easily learned and at times not learned at all.

Students coming to school from a background of cyclic time often do not understand the time demands of the school (the hourglass) related to the tasks and even resist those demands. These students are often left at the side of the road, while others are on the main road to success.

In addition, not all of us are trained well enough to make accurate assessments of how much time any given task really takes. We say, “This will take me 2 hours,” but it actually took 4 or 6 hours.

Likewise, we think, “We need 20 minutes to drive to work to arrive on time,” but the jammed roads make us arrive much later.

Inaccurate assessment of the amount of time needed for finishing a task not only disturbs the synchronization of activities in the society. It makes people feel always short of time, under stress, and desperate. We need, therefore, to train people to make accurate assessments of the time needed for the tasks.

Studying the time perceptions of students and teachers, of workers, and

of mothers, I came to realize that some links could be found between people's time perceptions and their typical Patterns of Temporal Behavior (P.T.B.s). The attached table is an attempt to illustrate such possible, eventual links. I have added even a fourth time perception, "The Integrated" perception, which, in my view, should be one of the aims of education. Similar to Kohlberg's stages of Moral Development -- not everyone automatically reaches the higher ones with increasing age -- it is true also for the Integrated Time Perception. However, we are not at liberty not to try.

Time & Leadership

Leadership is a craft, not a science. It is a craft that creates a very special combination of the leader's vision of the future, of the ability to clearly communicate this vision to the followers, to get their full cooperation and involvement (even enthusiasm) for achieving shared goals based on shared moral values, and to allow people to grow and contribute their expertise.

Sciences can and should help a lot. However, leadership, a rare commodity, remains a craft that is often a God's blessing. I am not

saying that leaders have to be born (although some are, actually). We can help people to grow into leaders who work with people. People do the work. The main problem leaders face is the creation of a state of involvement, cooperation, and shared values and goals, as well as allowing people to grow within the task, so their contributions may be greater.

If you treat your people only as what they are now, you help them remain locked in their present selves. But if you treat people as what they can become and help them toward becoming their future selves, the entire organization will benefit and prosper. However, to treat them in this manner, leaders must have a clear vision of the attainable future -- a strong future orientation. Figuratively, the leader must hold a compass that continuously shows north -- the goals. But a compass does not show us how to get where we are going. A map is necessary for finding the best and shortest route. If the people in the organization all want to reach the goal, they alone hold the maps. Often, they may even know the roads better.

Now, this outline of leadership may appear to fit management as well. Indeed, the distinction between management and leadership as we find it

in the literature is not so simple. According to the theory, managers work within presented, binding frameworks and parameters, remain in them, and strive to succeed. Leaders are not bound by these parameters. Moreover, they tend to break the parameters and provide new, more suitable ones. Or, as the saying goes, **Managers do things right** (within the prescribed parameters); **Leaders do the right things** (disregarding parameters when needed).

This distinction between managers and leaders sounds good on paper. The trouble with real life is that we often want managers to be leaders as well. We speak of school principals as leaders and even want teachers in the classrooms to be leaders and to provide personal examples. What makes the difference is the length of the temporal horizon, the ability to look beyond the horizon. No leader can survive for long if focused on the present. Leadership means, most of all, a vision. The length of the temporal horizon or perspective **can be taught** (if God has not blessed you at birth).

Ask people to spell out how and where they see themselves and their organization a year from now, or 3 or 5 years from now. Ask these people to spell out their values and goals, how to get them shared by

others, how to get their cooperation, what they might need to help them, and so forth.

My personal experience as the Chair of our master's degree program for school principals has shown that the majority of individuals (alas, not all!) greatly benefited from such workshops.

In summary, disregarding the time dimension in our life and work will make time our enemy. Understanding time and recruiting it can make it our partner.