

attractive place mats and napkins, light candles, place flowers on the table, and turn on soft music. You might also start a fire if you have a fireplace. In these types of situations, the environment can be manipulated to create a particular mood or atmosphere.

The moveable, changeable features of the environment are called *semifixed elements*. These elements include how you arrange things (such as the classroom desks), how you use artifacts or objects (such as the place mats, candles, and flowers) and how you use light, color, temperature, and noise (such as dimming the lights, lighting the fire, and turning on music). Other elements in the environment are harder to change. These elements, which are called *fixed elements*, include architectural features such as the size and volume of space and the materials used in the environment. Think about all the different styles of homes in which you have been. Some have low ceilings, others have cathedral-style ceilings. Some homes have a lot of open space; others have more defined barriers between different rooms. Some homes are long and rectangular; others are square. Some homes use brick; others use wood, stone, or synthetic materials. All of these features help set the stage for the interaction that occurs within a given environment.

Environmental features have been found to be important in a variety of settings. In article 31, Sallis and Kerr explain how the environment we build can influence our health, including how planning cities and buildings can promote physical activity. The colors in the environment can even have subtle effects on communication, as Stein (article 32) reports in her short essay. People in the health field, for example, often use soft soothing colors in offices and hospitals. So whether you are trying to design an environment that promotes healing, or just trying to create a cozy environment for a dinner party, environmental cues can make a big difference.

Finally, Buslig (article 33) discusses environmental "stop signs" or cues for maintaining privacy. The chapter describes flight strategies such as actively asserting one's right to privacy, and flight strategies that involve nonconfrontational ways of responding to the invasion.

Gonzalez and Zimbardo explain the role of time in people's lives. They surveyed over 11,000 people in the United States and around the world and identified 7 different ways of experiencing time. They call these time perspectives.

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Time in Perspective

*Alexander Gonzalez
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There is no more powerful, pervasive influence on how individuals think and cultures interact than our different perspectives on time—the way we mentally partition time into past, present and future. Every child learns a time perspective appropriate to the values and needs of his society. Where religion stresses ancestor worship, for example, the past is sacred and of primary significance. Nomads and others who live on a subsistence level develop a keen sense of the present and a limited sense of the future.

As industrialization, capitalism and technology flourished in Western society, thinking became dominated by a preoccupation with the future. Savings banks and insurance agencies, important institutions in our society, became viable only after people had developed a sense of an extended future.

Our temporal perspective influences a wide range of psychological processes, from motivation, emotion and spontaneity to risk taking, creativity and problem solving. Individual behavior is regulated by subjugating the urgencies of the present to the learned demands of past and future. Without an articulate sense of the future, the force of obligations, liabilities, expectations and goal setting is diminished.

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Without a time perspective in which the past blends into the present, how could we establish a sense of personality—a sense of self that is stable through time—or extract causality and consistency from possibly coincidental, random events in our lives? George Orwell recognized the importance of time perspective when in 1984 he created a Ministry of Truth to destroy it. By deliberately rewriting the past to “say of this or that event, *it never happened*,” governments can reconstruct what was to fit more acceptably into what ought to have been, given what is.

But we do not need a Ministry of Truth to bias our time perspective. Many people today have abandoned the past as irrelevant to achieving future objectives. Some have gone a step further, giving up the present time as an equal waste of time—a concern that interferes with the delay of gratification and task perseverance necessary to “make it” in their jobs. Others have never developed a meaningful sense of the future; they cannot shift focus away from the concrete reality and sensory temptations of the present to consider abstract future goals. Their temporal bias gives precedence to events that can be directly experienced here and now.

To see how these different time perspectives relate to characteristics such as age, sex, income and occupation, we asked *Psychology Today* readers in February last year to complete a two-page questionnaire called “The Times of Your Life,” a version of the Stanford Time Perspective Inventory. Respondents provided demographic information and indicated, on a 5-point scale from “very characteristic” to “very uncharacteristic,” how well each of 31 statements described them. They also selected from among six time perspectives the one that best matched their own.

The box below summarized the demographic data. Most of the 11,892 people who returned the survey came from the United States—all 50 states. Five percent came from Canada, Mexico, Puerto Rico, the Virgin Islands, four European countries, and as far away as Saudi Arabia. Many teachers sent in batches of surveys filled out by their students in junior and senior high schools, colleges and adult-education classes.

The diverse sample included an 8-year-old boy and a 93-year-old great-grandmother, many ministers and prisoners (one on death row), a self-reported millionaire, others living at the poverty level, professional athletes, and retired military officers. A surprising 72 percent of the sample consisted of those who were firstborn (46 percent) and second-born (26 percent). Three out of four indicated a willingness to discuss their answers in a follow-up and provided their phone numbers.

The most statistically “typical” respondent was a 34-year-old white woman, firstborn, a college graduate in a skilled occupation, earning more than \$25,000, living in California or New York. Because respondents are self-selected, findings from this *Psychology Today*

reader survey cannot be generalized beyond this sample. Nevertheless, the size and variability of the sample are desirable qualities in exploratory stages of research such as ours.

Profile of Respondents*

Sex		Occupation	
Men	33%	Artist, writer, designer,	
Women	67%	craftsperson	5%
Age		Homeworker	5%
8–19	12%	Manager, administrator,	
20–29	27%	businessperson	17%
30–39	26%	Professional with advanced	
40–49	19%	degree	9%
50–59	11%	Teacher, counselor, social	
60 and over	5%	worker, nurse	17%
Education		Technician, skilled worker	4%
High school graduate or less	21%	Semiskilled or unskilled	
Some college	27%	worker	2%
College graduate	24%	White-collar worker	10%
Some graduate school	3%	Student	20%
Master's degree	18%	Retired	3%
Professional degree (doctor,		Unemployed	1%
lawyer, engineer)	2%	Others (farmer, military,	
Ph.D.	5%	prisoner)	6%
Income		Ethnic Background	
Less than \$10,000	28%	Caucasian/white	89%
\$10,000 to \$15,999	14%	Black	3%
\$16,000 to \$25,999	23%	Hispanic	3%
\$26,000 to \$35,999	17%	Asian American	1%
\$36,000 to \$45,999	8%	Native American, Pacific	
\$46,000 to \$60,999	5%	Islander and other	4%
\$61,000 to \$99,999	3%		
\$100,000 or above	2%		

*Percentages add up to less than 100 because they were rounded off.

SELF-RATED PERSPECTIVES

Asked to select one phrase from among six that best characterized their personal time perspectives, 57 percent of our respondents choose a “balanced orientation of present and future,” and another 33 percent feel they are primarily “future oriented.” Only 9 percent are “present oriented,” and a mere 1 percent report that they focus mainly on the past. Among those who are future oriented, more focus on short-term

rather than long-term goals (20 percent versus 13 percent). And twice as many of those with a present orientation describe themselves as "enjoying the moment" rather than "avoiding planning or thinking ahead" (6 percent versus 3 percent).

Perhaps a balanced orientation is the most popular choice because it seems more socially desirable than the other options. In any case, the percentage of respondents who rate themselves as balanced increases steadily with age, from 50 percent of the teenagers to 63 percent of those 40 or older. More women than men feel they have a balance orientation; this is especially true among homemakers and teachers.

Men are more likely than women to report a future focus, a tendency that increases as income goes up. The focus on short-term goals is most apparent among those in professional occupations, and least for the retired, homemakers, and semiskilled or unskilled workers. Students are the most preoccupied with long-term future orientation; retired people are the least.

Professionals, managers, and teachers are least likely to enjoy living for the moment. Unskilled and semiskilled workers, younger people, and the less affluent are most likely to focus on the present.

A past orientation, rare for all groups, is found mostly among the retired, homemakers, and blue-collar workers. Because we knew from previous research with our survey that few people in our society have a past orientation, we excluded items that explored this perspective from the questionnaire that ran in *Psychology Today*. Instead, we focused on items that would reflect different aspects of present and future orientations.

Seven Time Perspectives

We began our current research by analyzing the psychological aspects of what it meant to be future or present oriented. For each of these perspectives, we prepared a specific statement that seemed to capture its essence. Thus "delaying gratification," an aspect of a future time sense, was represented by the statement "I am able to resist temptations when I know there is work to be done." Similarly, the "action-without-reflection" feature of a present orientation was represented by "I do things impulsively, making decisions on the spur of the moment."

We reduced an initial pool of about 70 such items to the 31 used in this survey through a statistical technique called factor analysis. This method enables one to identify a set of underlying factors that contribute to a complex ability or trait and to measure the relative importance of each factor. We then factor-analyzed data from the *Psychology Today* survey to assess how the 31 items were perceived by the sample as a whole, and by various subgroups selected by age, sex, income and occupation.

By analyzing the statistical correlations among the items, we found that 25 of them clustered together in different combinations to

Seven Time Zones

(All items are listed in order of their significance within each factor.)

Factor 1: Future, work motivation—perseverance

- A. Meeting tomorrow's deadlines and doing other necessary work comes before tonight's partying.
- B. I meet my obligations to friends and authorities on time.
- C. I complete projects on time by making steady progress.
- D. I am able to resist temptations when I know there is work to be done.
- E. I keep working at a difficult, uninteresting task if it will help me get ahead.

The items that make up this factor were the ones noted highest as a group by the *Psychology Today* sample. The factor embodies a positive work motivation and a stereotypically Protestant work ethic of finishing a task despite difficulties and temptations.

Factor 2: Present, fatalistic, worry-free, avoid planning

- A. If things don't get done on time, I don't worry about it.
- B. I think that it's useless to plan too far ahead because things hardly ever come out the way you planned anyway.
- C. I try to live one day at a time.

People with this orientation live one day at a time, not to enjoy it fully but to avoid planning for the next day and to minimize anxiety about a future they perceive as being determined by fate rather than by their efforts.

Factor 3: Present, hedonistic

- A. I believe that getting together with friends to party is one of life's important pleasures.
- B. I do things impulsively, making decisions on the spur of the moment.
- C. I take risks to put excitement in my life.
- D. I get drunk at parties.
- E. It's fun to gamble.

In contrast with the present-oriented people described by Factor 2, hedonists fill their days with pleasure-seeking partying, taking risks, drinking and impulsive action of all kinds. Many teenagers fall into this category. Among older hedonists, gambling is often an important element.

Factor 4: Future, goal seeking and planning

- A. Thinking about the future is pleasant to me.
- B. When I want to achieve something, I set subgoals and consider specific means for reaching those goals.
- C. It seems to me that my career path is pretty well laid out.

Compared to future Factor 1, the items here center less on work per se and more on the pleasure that comes from planning and achieving goals.

Factor 5: Time press

- A. It upsets me to be late for appointments.
- B. I meet my obligations to friends and authorities on time.
- C. I get irritated at people who keep me waiting when we've agreed to meet at a given time.

This factor doesn't fall neatly into a present or future orientation (although it does correlate positively with the future factors). It centers on a person's sensitivity to the role time plays in social obligations and how it can be used as a weapon in struggles for status.

Factor 6: Future, pragmatic action for later gain

- A. It makes sense to invest a substantial part of my income in insurance premiums.
- B. I believe that "A stitch in time saves nine."
- C. I believe that "A bird in the hand is worth two in the bush."
- D. I believe it is important to save for a rainy day.

These people act now to achieve desirable future consequences. We had thought that the item "A bird in the hand is worth two in the bush" would be characteristic of present orientation. Instead, our respondents saw it as advice to do or have something concrete now rather than gambling on an uncertain outcome. Thus it is a conservative strategy to safeguard future options.

Factor 7: Future, specific, daily planning

- A. I believe a person's day should be planned each morning.
- B. I make lists of things I must do.
- C. When I want to achieve something, I set subgoals and consider specific means for reaching those goals.
- D. I believe that "A stitch in time saves nine."

Factor 7 describes individuals obsessed with the nitty-gritty of getting ahead. They adopt a somewhat compulsive attitude toward daily planning, make lists of things to do, set subgoals and pay attention to details.

form seven distinctively different factors: four future-oriented, two present-oriented, and one that is a measure of time sensitivity or emotional reaction to the pressure of time. We gave each of the factors a name (see the box on the "Seven Time Zones") based on what we felt were the distinctive characteristics of its cluster.

As part of our analysis, we established four age categories—19 years old and younger; young adults, 20 to 39; middle-aged, 40 to 59; and elders, 60 years and older. When we compared the scores for each of the seven time factors on the basis of age, gender, income level and occupation, we uncovered a number of consistent patterns among them.

Age and Gender

Both men and women become more future oriented as they age—with one exception, goal seeking and planning. Women 20 to 39 years old are the least preoccupied with goal seeking. Sensitivity to time pressures is also age-related, with older people indicating more emotional reactions to lateness and time pressure.

Those 19 and younger are significantly lower than any of the other age groups in their work motivation, daily planning and time sensitivity. We would expect them to be the most present oriented of any group, and they are, if you combine both present Factors 2 and 3, fatalism and hedonism. However, people 60 and older are as fatalistic as those 19 and younger, with older women being the most fatalistic of all. The dubious honor of being most hedonistic goes not to teenagers, who come in second, but to young male adults. Among women, young adults are the most hedonistic.

Income and Gender

How much money one makes relates closely to temporal perspective. Annual income goes up as future orientation increases, and down as present orientation becomes more dominant. Those with incomes of less than \$16,000 differ from wealthier people in a variety of ways. They report less motivation to work, goal seeking, pragmatic action and daily planning, and they are much more fatalistic as well as hedonistic. This present-oriented bias is at its strongest among the men with the lowest incomes.

The mixture of factors that best predicts high income is future-oriented work motivation, goal seeking and daily planning, coupled with low scores on fatalism. Pragmatism does not vary among women with different incomes, and very little among men, although men with low incomes focus least on pragmatic action. Women become less hedonistic as income goes up. Among men, those with the lowest incomes are the most hedonistic, followed by those with the highest incomes. Men of every income level are considerably more hedonistic than are women.

Women score significantly higher than men across all income levels on three of the four future factors: work motivation, pragmatic action and daily planning. On goal seeking, the top-income men score higher than the top-income women. The generally stronger future orientation of women on these survey items contrasts with what the respondents said when we asked them directly to choose their personal time perspective from among six options. In answer to that question, as mentioned earlier, more men than women rated themselves as being future oriented.

Occupations

As the "Time-Bound Occupations" table shows, different kinds of jobs best represent each of the future and present factors. It seems likely that two processes are at work here. Individuals select certain occupations because they already have the time orientation called for. Once in the job, success and satisfaction depend on intensifying the orientation further.

The time orientation that individuals develop early in life depends chiefly on their socioeconomic class and their personal experiences with its values, influences and institutions. A child with parents in unskilled and semi-skilled occupations is usually socialized in a way that promotes a present-oriented fatalism and hedonism. A child of parents who are managers, teachers or other professionals learns future-oriented values and strategies designed to promote achievement.

We have found in other studies that present-oriented people, especially fatalists, tend to see their world as one in which rewards are controlled by others. Men and women who are future oriented, especially those high in work motivation and goal seeking, see themselves as in charge of their own destinies. In an industrial, technologically based society such as ours, a present-oriented time sense dooms most people to life at the bottom of the heap. There is no place for fatalism, impulsivity or spontaneity when the marketplace is run on objectives, deadlines, budgets and quotas.

We believe that many of the explanations that have emphasized motivation or ability in accounting for differences among individuals,

Time-Bound Occupations

	<i>Most</i>	<i>Least</i>
F ₁ -Future Work Motivation	Manager White collar	Student Semiskilled/unskilled
F ₂ -Present Fatalism	Semiskilled/unskilled Homemaker	Professional Manager
F ₃ -Present Hedonism	Student Semiskilled/unskilled	Homeworker Retired
F ₄ -Future Goal Seeking	Professional Teacher	Semiskilled/ unskilled White collar
F ₅ - Time Sensitivity	Retired Manager	Student/Farmer Military/Prisoner
F ₆ -Future Pragmatic Action	Retired Homemaker	Artist Student
F ₇ -Future Daily Planning	Teacher Professional	Semiskilled/unskilled Student

groups or cultures can be more accurately understood in terms of differing time perspectives. If so, what we need is remedial time-perspective training rather than another round of programs based on incentives and education concerned only with the acquisition of knowledge. Chronic problems, such as delinquency and the high incidence of unwanted pregnancies among teenagers, historically have resisted change through these latter approaches, but might be vulnerable to time-perspective modification.

LEARNING TO SHIFT GEARS

The clash of time perspectives also accounts for some of the misunderstandings between us and people from Latin American and Mediterranean countries. From their strong present and past perspectives, they see us as obsessed with working, efficiency, rationality, delaying gratification and planning for what will be. To us, they are inefficient, lazy, imprudent, backward and immature in their obsession with making the most of the moment.

It is probably unrealistic to expect either type of culture to accept, or even fully understand, the other's time perspective. But by acknowledging how our temporal perspectives direct our thinking, feeling and behavior into narrow channels, we can choose a more balanced, situationally appropriate orientation. When it is time to work, a future orientation is needed to determine the best means to the ends you have chosen. But when it is time to play, to consume food, to enjoy social relationships and other pleasures, it makes sense to suspend work motivation, daily planning, pragmatic action and goal seeking. Then is the time to adopt a measure of hedonism. To live a life in but one time zone diminishes the richness of human experience and limits our options.

*Can you easily handle multiple tasks at one time, or do you prefer to concentrate on a single task and then move on to the next one?
Does it bother you when you are talking to someone who is doing something else, like watching television, while they are listening to you?
According to Hall and Hall, your answers to these questions might depend at least partially on your culture. Monochronic cultures focus on one thing at a time, whereas polychronic cultures do many things all at once.*

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Monochronic and Polychronic Time

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There are many kinds of time systems in the world, but two are most important to international business. We call them monochronic and polychronic time. Monochronic time means paying attention to and doing only one thing at a time. Polychronic time means being involved with many things at once. Like oil and water, the two systems do not mix.

In monochronic cultures, time is experienced and used in a linear way—comparable to a road extending from the past into the future. Monochronic time is divided quite naturally into segments; it is scheduled and compartmentalized, making it possible for a person to concentrate on one thing at a time. In a monochronic system, the schedule may take priority above all else and be treated as sacred and unalterable.

Monochronic time is perceived as being almost *tangible*: people talk about it as though it were money, as something that can be “spent,” “saved,” “wasted,” and “lost.” It is also used as a classification

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system for ordering life and setting priorities: “I don’t have time to see him.” Because monochronic time concentrates on one thing at a time, people who are governed by it don’t like to be interrupted. Monochronic time seals people off from one another and, as a result, intensifies some relationships while shortchanging others. Time becomes a room which some people are allowed to enter, while others are excluded.

Monochronic time dominates most business in the United States. While Americans perceive it as almost in the air they breathe, it is nevertheless a learned product of northern European culture and is therefore arbitrary and imposed. Monochronic time is an artifact of the industrial revolution in England; factory life required the labor force to be on hand and in place at an appointed hour. In spite of the fact that it is *learned*, monochronic time now appears to be natural and logical because the great majority of Americans grew up in monochronic time systems with whistles and bells counting off the hours.

Other Western cultures—Switzerland, Germany, and Scandinavia in particular—are dominated by the iron hand of monochronic time as well. German and Swiss cultures represent classic examples of monochronic time. Still, monochronic time is not natural time; in fact, it seems to violate many of humanity’s innate rhythms.

In almost every respect, polychronic systems are the antithesis of monochronic systems. Polychronic time is characterized by the simultaneous occurrence of many things and by a *great involvement with people*. There is more emphasis on completing human transactions than on holding to schedules. For example, two polychronic Latins conversing on a street corner would likely opt to be late for their next appointment rather than abruptly terminate the conversation before its natural conclusion. Polychronic time is experienced as much less tangible than monochronic time and can better be compared to a single point than to a road.

Proper understanding of the difference between the monochronic and polychronic time systems will be helpful in dealing with the time-flexible Mediterranean peoples. While the generalizations listed below do not apply equally to all cultures, they will help convey a pattern:

<i>Monochronic People</i>	<i>Polychronic People</i>
do one thing at a time	do many things at once
concentrate on the job	are highly distractible and subject to interruptions
take time commitments (deadlines, schedules) seriously	consider time commitments an objective to be achieved, if possible
are low-context and need information	are high-context and already have information
are committed to the job	are committed to people and human relationships

Monochronic People

adhere religiously to plans
 are concerned about not disturbing others; follow rules of privacy and consideration
 show great respect for private property; seldom borrow or lend
 emphasize promptness
 are accustomed to short-term relationships

Polychronic People

change plans often and easily
 are more concerned with those who are closely related (family, friends, close business associates) than with privacy
 borrow and lend things often and easily
 base promptness on the relationship
 have strong tendency to build lifetime relationships

THE RELATION BETWEEN TIME AND SPACE

In monochronic time cultures the emphasis is on the compartmentalization of functions and people. Private offices are soundproof if possible. In polychronic Mediterranean cultures, business offices often have large reception areas where people can wait. Company or government officials may even transact their business by moving about in the reception area, stopping to confer with this group and that one until everyone has been attended to.

Polychronic people feel that private space disrupts the flow of information by shutting people off from one another. In polychronic systems, appointments mean very little and may be shifted around even at the last minute to accommodate someone more important in an individual's hierarchy of family, friends, or associates. Some polychronic people (such as Latin Americans and Arabs) give precedence to their large circle of family members over any business obligation. Polychronic people also have many close friends and good clients with whom they spend a great deal of time. The close link to clients or customers creates a reciprocal feeling of obligation and a mutual desire to be helpful.

POLYCHRONIC TIME AND INFORMATION

Polychronic people live in a sea of information. They feel they must be up to the minute about everything and everybody, be it business or personal, and they seldom subordinate personal relationships to the exigencies of schedules or budgets.

It is impossible to know how many millions of dollars have been lost in international business because monochronic and polychronic people do not understand each other or even realize that two such different time systems exist. The following example illustrates how difficult it is for these two types to relate:

A French salesman working for a French company that had recently been bought by Americans found himself with a new American manager who expected instant results and higher profits immediately. Because of the emphasis on personal relationships, it frequently takes years to develop customers in polychronic France, and, in family-owned firms, relationships with customers may span generations. The American manager, not understanding this, ordered the salesman to develop new customers within three months. The salesman knew this was impossible and had to resign, asserting his legal right to take with him all the loyal customers he had developed over the years. Neither side understood what had happened.

These two opposing views of time and personal relationships often show up during business meetings. In French meetings the information flow is high, and one is expected to read other people's thoughts, intuit the state of their business, and even garner indirectly what government regulations are in the offing. For the French and other polychronic/high-context people, a tight, fixed agenda can be an encumbrance, even an insult to one's intelligence. Most, if not all, of those present have a pretty good idea of what will be discussed beforehand. The purpose of the meeting is to create consensus. A rigid agenda and consensus represent opposite goals and do not mix. The importance of this basic dichotomy cannot be overemphasized.