ABSTRACT: Five cultural practices have eroded the contingencies of reinforcement under which the human species evolved by promoting the pleasing effects of the consequences of behavior at the expense of the strengthening effects. These practices are (a) alienating workers from the consequences of their work, (b) helping those who could help themselves, (c) guiding behavior with rules rather than supplying reinforcing consequences, (d) maintaining aversive sanctions of governments and religions with long-deferred benefits for the individual, and (e) reinforcing looking, listening, reading, gambling, and so on, while strengthening very few other behaviors. Hence, where thousands of millions of people in other parts of the world cannot do many of the things they want to do, hundreds of millions of people in the West do not want to do many of the things they can do. Human behavior in the West has grown weak, but it can be strengthened through the application of principles derived from an experimental analysis of behavior.

There are many things wrong with the world today, but they do not disturb everyone. Overpopulation, the impoverishment and pollution of the environment, and even the possibility of a nuclear war are often dismissed as matters to be dealt with in the fairly distant future. Poverty, illness, and violence are current problems, but not for everyone. Many of those who live in the Western democracies enjoy a reasonable degree of affluence, freedom, and security. But they have problems of their own. In spite of their privileges, many of them are bored, listless, or depressed. They are not enjoying their lives. They do not like what they are doing; they are not doing what they like to do. In a word, they are unhappy. That is not the most serious problem in the world, but it could be said to be an ultimate one. Most of the world looks forward to enjoying some approximation of the Western life-style when they have solved their other problems. Is there not something more promising in the future of the species?

These are statements about how people feel. It is standard practice to phrase them that way. For centuries, feelings have been accepted as both the causes and the effects of behavior. People are said to do what they do because they feel like doing it and to feel as they feel because of what they have done. Because feelings appear to play such important roles, it has been argued that a science of behavior must be incomplete and that it cannot solve the kind of problem I am concerned with here.

Feelings, however, are not out of reach of a behavioral science. The question is not what feelings are, but what is felt. Feel is a verb—like see, hear, or taste. We see, hear, and taste things in the world around us, and we feel things in our bodies. When we feel lame, we are feeling lame muscles; when we feel tired, we are feeling a tired body; when we have a toothache, we are feeling an inflamed tooth. Feeling differs from other kinds of sensing in several ways. Because what we feel is within our skin, we cannot escape from it. The sense organs with which we feel it are not as easily observed as those with which we see things in the world around us. And we cannot report what we feel as accurately as what we see because those who teach us to do so lack information about the body we feel. I need not pursue those epistemological issues further, however, to state the present question: What is felt when we are not enjoying our lives? And, of course, what is to be changed if we are to feel differently?

I am suggesting that answers are to be found in something that has happened in the history of the species. The first members of *homo sapiens* must have been very much like the other primates we see today. They would have had their own ways of gathering or hunting for food, building shelters, finding mates, raising families, and avoiding harm. Their behavior would have been as much the product of natural selection as that of other primates and perhaps no more readily modified through conditioning. Like other species, they would have profited from the experience of others, but only through imitation and modeling.

The human species took a unique evolutionary step when its vocal musculature came under operant control and language was born. People could then tell, as well as show, each other what to do. Extraordinarily complex social environments or cultures evolved, and they gave the species its extraordinary power. I shall argue that at the same time many of those cultural practices eroded or destroyed certain relations between organism and environment that had prevailed at the time the process of operant conditioning evolved.

The result is easily described as a matter of feelings because the feelings at issue are closely tied to operant reinforcement. Thus, we say that reinforcing things please us, that we like them, and that they feel good. The association of reinforcement with feeling is so strong that it has long been said that things reinforce because they feel good or feel good because they reinforce. We should say, instead, that things both feel good and reinforce because of what has happened in the evolution of the species.

Organisms presumably eat nourishing foods because genetic variations that increased their likelihood of doing so contributed to the survival of the individual and the species, and these variations were selected. In the simpler
species, we do not often say that the foods must “taste good.” The issue of enjoyment presumably arose when organisms became susceptible to reinforcement by the same foods. They then ate for two reasons: The behavior was innate and was also reinforced by its consequences. It is the reinforcing effect, not the genetic tendency to eat, that we report when we say that foods “taste good.”

Reinforcement has, however, another effect: Behavior that is reinforced is more likely to occur again. At the risk of being seriously misunderstood by critics of behaviorism, I shall distinguish between the “pleasing” and the “strengthening” effects. They occur at different times and are felt as different things. When we feel pleased, we are not necessarily feeling a greater inclination to behave in the same way. (Indeed, when we call a reinforcer satisfying rather than pleasing, as Thorndike did, we suggest that it reduces the likelihood of acting in the same way, because satisfying is etymologically close to satiating.) When we later repeat behavior that has been reinforced, we do not feel the pleasing effect we felt at the time the reinforcement occurred. Pleasing appears to be the everyday English word that is closest to reinforcing, but it covers only half the effect.

I am arguing that cultural practices have evolved primarily because of the pleasing effect of reinforcement and that much of the strengthening effect of the consequences of behavior has been lost. The evolution of cultural practices has miscarried. It is rather like what has happened in the field of health. The species evolved in an environment with a given mean temperature and humidity, a given purity of water, given kinds of food, and given predators, including viruses and bacteria. Cultural practices have vastly changed all that, and because natural selection has been too slow to keep pace, we suffer many illnesses from which the species must once have been free. The world we live in is largely man-made—and nowhere more so than in the West—but in an important sense it is not well made.

Before looking more closely at the nature of what is wrong, it will be helpful to review five cultural practices that, by promoting the pleasing effects of the consequences of behavior at the expense of the strengthening effects, have eroded the contingencies of reinforcement.

Alienation

I begin with an old chestnut, the “alienation of the worker from the product of his work.” That is from Karl Marx, of course, and it is often assumed that Marx meant depriving workers of the products of their work. A better word is estrangement. The behavior of the industrial worker is separated from the kind of immediate consequence that shapes and maintains the behavior of, say, a craftsman. Alienation can scarcely be exploitation because entrepreneurs are also estranged from the consequences of what they do, and so are the workers in socialist states.

The reinforcer in question is money, but love of money is only indirectly the root of this particular evil. Money is a conditioned reinforcer; it becomes reinforcing only when it is exchanged for goods or services. It is always one step away from the kind of reinforcing consequences to which the species originally became susceptible. It is also a generalized reinforcer; it is exchanged for many different things. If you assemble a television set for your own use, you will not assemble another until you need one, but you exchange money for so many different things that you almost always need it. In a factory you assemble one set and then another.

The reinforcing effect of money is especially weak when it is paid on contract. The contingencies are aversive. Workers do not work “in order to be paid,” if that means that the money they will receive at the end of the week affects their behavior during the week. They work to avoid being discharged and losing the money they would otherwise receive. Most of the time they do simply what they are told to do or have agreed to do. Having assembled part of a television set on a production line, the worker is not then more strongly inclined to assemble another. The contract must remain in force. Workers rarely put in a free day at the factory just because they have been paid when they have done so at other times.

Money is reinforcing when it is piece-rate pay or is paid on commission (technically speaking, when behavior is reinforced on a fixed-ratio schedule), or when it is paid on the variable-ratio schedule of all gambling systems; however, other schedules are far commoner, and wages do not, strictly speaking, reinforce at all.

The strengthening effect is missed, by the way, when reinforcers are called rewards. People are rewarded, but behavior is reinforced. If, as you walk along the street, you look down and find some money, and if money is reinforcing, you will tend to look down again for some time, but we should not say that you were rewarded for looking down. As the history of the word shows, reward implies compensation, something that offsets a sacrifice or loss, if only the expenditure of effort. We give heroes medals, students degrees, and famous people prizes, but those rewards are not directly contingent on what they have done, and it is generally felt that the rewards would not be deserved if they had been worked for.

Alienation of the worker is inevitable if the world is to profit from specialization and a division of labor. A single individual does not raise sheep, shear wool, spin thread, weave cloth, and make a coat. Instead, one person raises sheep, another spins thread, and another weaves cloth; each exchanges what he or she has done for one of the coats, which are made by still another person who has traded them for wool, thread, and cloth. There is no question of the gain, but the inevitable consequence is that one person spends a greater amount of time doing only one kind of thing. Everyone knows what it means to be tired of too often doing the things one enjoys, and that is another reason why industries turn to essentially
aversive measures to maintain the behavior of their workers.

In summary, industrial practices in Western cultures have made goods and services more readily available, but they have destroyed many natural contingencies of reinforcement.

Help

A second source of erosion is closely related. As we have noted, most employers are as alienated from what is produced as their employees. For thousands of years people have "saved labor" either by forcing slaves to work for them or by paying servants or employees. More recently, they have turned to laborsaving devices and robots. The aversive consequences of labor are saved, but the reinforcing ones are lost. Like the worker, the employer does fewer kinds of things and does each one more often. Consider the extent to which laborsaving devices have made us button-pushers; we push buttons on elevators, telephones, dashboards, video recorders, washing machines, ovens, typewriters, and computers, all in exchange for actions that would at least have had a bit of variety. Systems that save labor also save laborers, and the familiar problem of unemployment follows, but even if everyone could enjoy a share of the labor saved, there would still be alienation.

In some parts of America people who work for others are called "the help," but help is not always something one pays for. Benevolent cultures help small children, the handicapped, the ill, and the aged. Cultures that do so are less vulnerable to defection and more likely to solve their problems, but harmful consequences follow when they help those who can help themselves. Helping children to do something they could do alone deprives them of reinforcing consequences that would shape and maintain more useful behavior. Helping older people to do things they could do for themselves deprives them of the opportunity to engage in reinforced activities.

In the Western democracies, people are also freer than elsewhere from other kinds of aversive conditions. The Atlantic Charter guarantees freedom from fear and freedom from want. Perhaps there is no part of the world in which everyone enjoys the rights to security and access to goods, but the Western democracies have gone farthest in that direction. In many ways they may have gone too far. What has happened resembles the illness called anorexia nervosa. An overweight person begins a program of weight reduction, reaches a satisfactory weight, and proceeds to become emaciated. Something of the sort has happened as we have moved toward a way of life that is free from all kinds of unpleasant things. We not only resist the constraints imposed by tyrannical governments and religions, we resist seat belts, hard hats, and no-smoking signs. We escape not only from painful extremes of temperature and exhausting work but also from the mildest discomforts and annoyances. As a result, there is very little left to escape from or act to prevent. The strengthening consequences in negative reinforcement that we enjoy as relief have been lost. We are suffering from what might be called libertas nervosa.

Perhaps there is no part of the world in which no one goes hungry, needs medical care, or lacks a place to live, but Western cultures have gone farthest in alleviating those hardships. To the extent that they care for their members beyond the point at which the members could care for themselves, they are suffering from what might be called caritas nervosa.

In summary, people who avoid labor and have things done for them escape from many aversive consequences, but beyond a certain point they deprive themselves of strengthening consequences as well.

Advice

The strengthening effect of reinforcement is eroded in a third way when people do things only because they have been told to do them. They buy the car they are advised to buy; they see the movie they are told to see; they shop at the store they are told to shop at. In Western cultures there has been a great expansion of this kind of "rule-governed" behavior. Advice is important, of course. No one could acquire a very large repertoire of behavior during a single lifetime without it. Someone tells us what to do and what consequences will follow; we do it and the consequences follow. The behavior then becomes part of our reinforced repertoire, and we forget the advice. Until consequences have followed, however, we take advice only because doing so has had reinforcing consequences, quite possibly of a different kind. We have done different things, and the consequences need not have been related to our present state of deprivation. If the friend who tells us that a particular restaurant serves excellent food has advised us in the past only about books that we have enjoyed reading, we will be less inclined to go to the restaurant than if the advice were about food.

We are also not strongly inclined to take advice if consequences have not often followed when we have done so. We may not always reach the point at which they follow. Formal education is largely a kind of advice, but little of the behavior shaped and maintained in the classroom is ever subsequently reinforced in daily life. Therefore, it is advice that we are not strongly inclined to take. Positive consequences also do not follow when advice is bad. It is easy to understand why people so often resist doing what they are advised to do and resent, rather than thank, those who give advice.

The kind of advice called science is usually worth taking because it is much better than personal exposure to the contingencies, but when we simply do what science tells us to do, the consequences are often long deferred. Some of them are only predicted and have not yet occurred in anyone's experience. The gains are great, but a strengthening effect is often missing.

Some of the advice we follow is the kind we give ourselves. We examine a set of contingencies and formulate a rule or plan. When we follow it, we are said to act rationally, in the sense of acting for a reason we can
name. Unless we are very good at analyzing contingencies, however, many of the consequences we predict never occur. We are seldom as strongly inclined to behave rationally as to act according to experienced consequences.

In summary, we take advice not because of the consequences that will follow in a given instance but because of consequences that have followed in the past. Most of the strength of our behavior is borrowed from the reinforcement of different behavior in different settings.

**Laws**

A fourth kind of cultural practice that reduces the strengthening effect of reinforcement also involves rules, but the rules are stronger. People tend to act in ways that please or avoid displeasing others, in part because the others respond in appropriate ways, but they are less inclined to behave well when they are merely observing rules of good conduct. Rules are extraordinarily important, of course, because they enable people to please or avoid displeasing others without submitting to possibly punitive consequences and to respond in appropriate ways when pleased or displeased. As with advice, however, people observe rules because of the contingencies under which they learned to do so or because reinforcing consequences have followed when they observed other rules. They are more inclined to behave well when face-to-face personal commendation or censure has followed.

Reinforcing consequences are further eroded when ethical rules are replaced by laws. The laws of government and religions are maintained primarily for the sake of the institutions. Consequences such as security or peace of mind also follow for the individual (the institutions would not have survived as cultural practices if they did not), but they are usually deferred. Moreover, cultural practices change faster than rules and laws, and people are therefore often "doing what is right" for reasons that are no longer working to the advantage of anyone. Contingencies of control maintained by governments and religions have at times been so powerful that those who respond to them report the exaltation or ecstasy associated with escape from a severe threat of punishment, but others have as strongly resisted.

In summary, then, when people behave well either by following ethical rules or obeying the laws of a government or religion, personal strengthening consequences are usually long deferred.

**Pleasures**

A fifth source of the erosion of natural contingencies is different. Many of the practices of advanced cultures appear to increase the frequency of immediate reinforcement. The West is especially rich in the things we call interesting, beautiful, delicious, entertaining, and exciting. They make daily life more reinforcing, but they reinforce little more than the behavior that brings one into contact with them. Beautiful pictures reinforce looking at them, delicious foods reinforce eating them, entertaining performances and exciting games reinforce watching them, and interesting books reinforce reading them, but nothing else is done. Although we look at a nude statue in part because a tendency to look at similar forms has played a part in the survival of the species, looking does not have that effect in this instance. We look at a painting by Cezanne, but we do not eat the apples. We listen to a piece of music by Smetana, but we do not swim in the Moldau. Reinforcing effects occur, but they are not contingent on the kind of behavior with respect to which the susceptibilities to reinforcement evolved.

The excitement of gambling, like the enjoyment of interesting or beautiful things, is also something that occurs when nothing more is done. When we buy lottery tickets, play blackjack or poker, operate slot machines, or play roulette, we do a very few things a very large number of times. Every winning play has a pleasing effect, but it is scheduled in such a way that the ultimate consequences are almost always either zero or negative. (In the long run gamblers must lose if gambling enterprises are to succeed.) We enjoy gambling, as we enjoy looking and listening, but only a very small sample of behavior is strengthened.

It may not seem that one could fail to enjoy a life spent looking at beautiful things, eating delicious foods, watching entertaining performances, and playing roulette, but it would be a life in which almost nothing else was done, and few of those who have been able to try it have been notably happy. What is wrong with life in the West is not that it has too many reinforcers, but that they are not contingent on the kinds of behavior that sustain the individual or promote the survival of the culture or species.

**The Effects**

Here, then, are five kinds of cultural practices that have eroded the contingencies of reinforcement under which the process of operant conditioning must have evolved. They have created many opportunities to do things that have pleasing consequences, but they are not the things with respect to which the consequences became strengthening. To review:

1. People work for wages, but most of what they produce does not directly reinforce their behavior. The group profits from a division of labor and from specialization, but the workers are alienated from the products of their work. Aversive contingencies must be invoked.

2. People pay others to produce the things they consume and thus avoid the aversive side of work, but they lose the reinforcing side as well, as do those who are helped by others when they could help themselves.

3. People do many things simply as they are advised to do but only because reinforcing consequences have followed when they have taken other kinds of advice. They avoid the cost of exploring new contingencies but miss the reinforcers that would have followed if they had not done so.

4. By observing rules and obeying laws, people avoid punishment, either by their acquaintances or by a government or religion. The personal consequences that are
said to “justify” the rules or laws are indirect and usually long-deferred.

5. People look at beautiful things, listen to beautiful music, and watch exciting entertainments, but the only behavior reinforced is looking, listening, and watching. When they gamble, they do a very few things a very large number of times, and eventually without gain.

We might put the result very generally in this way: Where thousands of millions of people in other parts of the world cannot do many of the things they want to do, hundreds of millions in the West do not want to do many of the things they can do. In winning the struggle for freedom and the pursuit of happiness, the West has lost its inclination to act.

A more detailed analysis is needed, however, and it must start a long way back. We think of the human species as the most advanced, but not, of course, in every way. It is not the swiftest or the strongest, nor are its senses the keenest. It is evidently the most skillful. The species was once called homo habilis, literally “handyman.” It had unusual hands and made unusual things. Then it became homo sapiens but not in the sense of sapient. Sapiens first meant discerning or, specifically, tasting. (We still say “good taste” when we mean nothing more than discernment.) Much more was to happen before the species could claim sapience in another sense, and it happened not to the species but to the world in which it lived.

When the vocal apparatus of homo sapiens came under operant control, language was born and with it a much more rapid evolution of cultural practices. The practices brought extraordinary gains, most clearly seen in the affluence, health, pleasure, and freedom of the West, but the world was no longer the world in which the species evolved. In that world people did not work for others or pay others to work for them. They did not act merely as they were advised to act (they could imitate others but only in roughly the same setting). They did not observe rules or obey laws. They did not look at pictures, or listen to music, or gamble (life was a gamble, but the payoff was life itself). When they had nothing to do, if we may judge from related species, they simply did nothing or slept.

It is easier to describe the contributions of cultural practices than to say what went wrong. To reinforce means quite simply to strengthen, and when the strengthening consequences of behavior were sacrificed for the sake of the pleasing, behavior simply grew weak. That is not a very impressive conclusion, and it is hard to make clear what it means. Strength is a basic concept in the analysis of operand behavior, but there is no good word for it in everyday English. Metaphors are never quite apt. Some of them appeal to combustion: Active people are called ardent or fervent, words that once meant burning and boiling, respectively. (We still say a person is hot or cold, and not only with respect to sex.) Some metaphors allude to causes; zealous once meant driven. Many refer to personal commitments; people are dedicated, devoted, or engagé. But there seems to be no word, metaphorical or otherwise, for strength itself.

It is possible that a word is lacking because behavior is often regarded as a mere sign or symptom. The important things are said to happen in the inner world of feelings and states of mind. There we do find terms that refer to strength or its lack. For example, the West is said to be suffering from a failure of will (call it abulia), a lack of compassion (call it apathy), a weakness of nerve (call it neurasthenia), or a weak libido (call it a weak will). We use terms of that sort easily and with great satisfaction in spite of the fact that no one has ever adequately explained what they mean. The effect is to direct attention away from the environmental conditions that would be more helpful in explaining and changing behavior.

As an established scientific term, strength refers to the probability that an organism will behave in a given way at a given time. Probability is hard to define and measure, but rate of responding is a sensitive dependent variable that is related. In the laboratory we watch the strength of behavior change as we change the variables of which it is a function. When for the first time we make a reinforcer contingent on a response, we bring an operand into existence. When we withdraw the reinforcer, we watch the behavior disappear in extinction. We maintain steady levels of strength over a wide range with various schedules of reinforcement.

The cultural practices we have examined weaken behavior in a special way. They change the temporal relations between behavior and its consequences, especially through the use of conditioned and generalized reinforcers. The effect can be corrected by restoring more strengthening contingencies. Once that is understood, our problem may be simpler than we think. It is much easier to change contingencies of reinforcement than to restore will, refill a reservoir of psychic energy, or strengthen nerves. Contingencies of reinforcement are an important field in the experimental analysis of behavior, and what is wrong with daily life in the West is precisely the field of “applied behavior analysis.” (That term is better than “behavior modification” because it does not mean drugs, implanted electrodes, or surgery. It means improving the strengthening contingencies of behavior.) Three familiar fields in which it is doing so are education, behavior therapy, and industrial counseling.

**Education**

The task of education is to build a repertoire of behavior that will eventually have reinforcing consequences in the daily and professional life of the student. Meanwhile, teachers provide temporary instructional contingencies, some of them social. The teacher is part of the world of the student, either as a model or as an arranger of reinforcing consequences. Historically, the consequences have been almost always punitive: if not the birch rod or cane, then criticism or failure. The three classical by-products of punishment follow: escape (truancy), counterattack (vandalism), and stubborn inaction. Efforts to use the natural reinforcers of daily life have sacrificed the famous basics, for which there are no natural reinforcers. Students who can read come into contact with the reinforcers that
writers put into what they write, but those reinforcers are out of reach until they read with some fluency. Meanwhile, contrived reinforcers can be used, but teachers who understand classroom management and the proper construction of programmed materials can also use the unconditioned reinforcers of success and signs of progress. The repertoires they construct will have other pleasing and strengthening consequences when teaching has been terminated.

Therapy

Much the same thing can be said of operant therapy. Therapy using respondent, or Pavlovian, conditioning is different. Desensitization, for example, works either by extinguishing conditioned reflexes or permitting disturbing responses of phylogenic origin to adapt out. There may be a strengthening effect if operant behavior has been suppressed, but operant therapy is directly a matter of strengthening. The counselor, like the teacher, is a temporary part of a social environment. Aversive measures were once common, but counselors now turn to them much less often than teachers. As in teaching, the behavior must be of a kind that will have reinforcing consequences not only in the presence of the counselor but later in the world at large.

Industry

Many people spend a large part of their time at work. Especially since the Industrial Revolution, the pattern has been, as in education, “work or suffer the consequences”—in this case, discharge and the loss of a scheduled wage. The same standard effects of aversive control are evident: escape (absenteeism), counterattack (sabotage), and as little action as possible. Classical remedies, such as letting the worker have a greater share in decision making, do not attack the central problem, which lies in the contingencies, and there changes are beginning to be made.

Other Fields

Progress is not as evident in other fields. Only a few of those who control the governmental and religious sanctions of daily life understand the problem or what can be done to solve it. The contingencies are there, however, and they can be improved as soon as their role is understood. Governments naturally resist deflection and revolution; religions resist apostasy and reformation; and industries resist rationalization and the control of prices and wages. There seems to be no reason, however, why the kind of change needed here should be resisted by anyone. Citizens, communicants, and employees will contribute as much to their respective agencies when aversive consequences have been replaced by alternatives that please and strengthen.

The fact that cultures have so often turned to punitive control may be the best evidence we have that they have neglected strengthening alternatives. A reduction in punitive control would improve life in still another way. When people work only to avoid losing a job, study only to avoid failure, and treat each other well only to avoid censure or institutional punishment, the threatening contingencies generalize. It always seems as if there must be something that one ought to be doing. As a result very few people can simply do nothing. They can relax only with the help of sedatives or tranquilizers, or by deliberately practicing relaxation. They can sleep only with the help of sleeping pills, of which billions are sold in the West every year. They are puzzled by, and envy, those in less developed countries whom they see happily doing nothing.

The Future

The quality of life in the West is not the most important problem in the world today. It cannot compare with global poverty, illness, and violence, or with overpopulation, the exhaustion of critical resources, the destruction of the environment, or a nuclear war. But a better quality of life should help to solve those problems. Because the West is taken as a model by the rest of the world, it would be a more challenging model if it were improved. It would also be easier to copy. Other cultures would not need to make our mistakes.

And, after all, how much pollution and overconsumption would be avoided if the West, which is by far the greatest offender, were to end its frantic search for enjoyable things to do? How much richer would the whole world be if the reinforcers in daily life were more effectively contingent on productive work? And, above all, how many of the wars of history have been fought only because people were not enjoying their lives?

In one way or another much of this has been said before. Certainly this is not the first time that anyone has pointed to the damaging side effects of civilization. That was a central theme of the Enlightenment. “Man,” said Rousseau, “is born free and he is everywhere in chains,” but that is only one instance. And certainly this is not the first time anyone has asked, What is the good life and how can it be achieved? But there may be something new in the present answer. Epicureans have sought the good life in multiplying pleasures. Stoics have tried to live “above pleasure and pain.” Many have looked for answers in a vita monastica or a strict puritanism. Eastern mystics have claimed to “abolish boredom by cherishing happiness.” Rationalists have turned to skillful self-management. All such solutions have begun as personal experiences, which have served as cultural variations to be tested by their effect on the survival of the practicing groups. None has been successful beyond the establishment of a fragmentary culture.

A solution based on scientific principles may have a better chance. We are beginning to see the reasons why people act as they do, and the reasons are of a sort that can be changed. A new set of practices cannot simply be imposed by a government, religion, or economic system; it would not be the right set of practices if that were done. It must play its part only as a variation to be tested by its survival value. The contingencies of selection are be-
Beyond our control. Cultures evolve much faster than species, but the kind of change that is needed will still take a long time. We must be prepared to wait.

Perhaps it is reassuring that what is wrong with daily life, apart from all the other things that are wrong with the world, is most characteristic of the West, because the West has also most actively supported science, particularly behavioral science. It is therefore a setting in which the problem and a possible solution have come together for the first time.