CONSCIOUSNESS FOR THE TWENTY-FIRST CENTURY

by Mihaly Csikszentmihalyi

Abstract. Human action and experience are the outcome of genes and memes. Not only are both of these represented in consciousness, but consciousness mediates their claims and thus governs our choices. Hence it is important how consciousness is ordered and where it is directed. Sorokin's typology of the sensate and the ideational ("spiritual"), and the dialectic between them, is relevant to this issue. In our period of history, the sensate factors of materialism and secularism need to be dialectically counterbalanced by the reinforcement of memes that value the spiritual intimations of the realm beyond the senses. As we approach the twenty-first century, the memes that will undergird our spirituality will be those that resacralize nature and emphasize our unity as humans with all of universal reality, in an idea of common "beinghood." Spiritual systems that accord with this trend in evolution will have to respect three conditions. They will (1) integrate the sensate and the ideational; (2) reflect the importance of the "flow" state of optimal experience, which matches ever-complexifying skills with comparable challenges; and (3) move the fulcrum of their worldview from the human being to the network of beings and its evolution.

Keywords: "beinghood"; cultural evolution; ideational; psychological selection; sensate; spirituality.

Psychologists, such as myself, are no more competent to speculate about the future than anyone else. This is especially so when the topic of speculation, as in this case, involves religion and spirituality: issues about which social scientists are usually politely silent. Yet if I dare to rush into this arena where angels should fear to tread, it is because I believe that it is difficult, and perhaps impossible, to talk about the evolving shape of human consciousness without also dealing with questions of the spirit.

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My argument will be simple: in the first place, it will claim that what humans do and what they experience is the outcome of two sets of instructions, one coded chemically in genes, the other coded in memes learned from the social and cultural milieu. Both sets of instructions are represented as information in consciousness, where their respective claims are mediated through attention, or psychic energy. Given that consciousness intervenes between our choices and the external instructions bidding us to act, it confers upon humankind a limited freedom.

Because of the power of consciousness to affect events, how it is ordered, and where it is directed, are extremely important issues. Two main principles of organizing consciousness are reviewed: the sensate and the ideational. The first one represents reality as revealed to the senses and suggests actions according to the organism's self-interest; the second tries to represent a "spiritual" reality beyond the grasp of the senses and directs action according to plans that are not necessarily supported by the genetically selected wisdom of the organism. It will be argued that evolution seems to proceed as a dialectical function of these two distinct worldviews, and that neither one alone can lead humankind into the future.

We are living in an age when the sensate conception of reality is dominant, and the ideational one is on the defensive. To ensure hope and a sense of purpose to the coming generations, it is necessary to restore credibility to the spiritual dimension of existence. The last third of this essay will explore possible ways this might be done.

In discussing the role of spirituality, I will not be drawing on revelation or on any of the traditional supports of religious belief. Instead, I will try to build arguments on purely rational and empirical grounds. This strategy might seem untenable to those who believe that only a literal adherence to a specific formulation of the sacred leads to truth. It seems even self-defeating to claim empirical validation for an epistemology that is essentially nonempirical. Yet what I hope to show is that material and spiritual views of reality are mutually supportive, and that there is no necessary conflict between a truth expressed in religious, and one expressed in scientific, jargon.

The Evolution of Consciousness

The future of humanity hinges on the organization of consciousness. Although everything we do is made possible and is constrained by our biological inheritance, at the same time we have become increasingly independent of genetic instructions and able to act in accord with ideas forged in the mind. Hence, in order to gain control over

the future, we must first understand what consciousness is, and how it operates. This is not an easy task because it is difficult to define what consciousness is without lapsing into circularity. We may say that it is whatever we are aware of when we are aware of being aware, but then what is awareness? An enigma will not help clarify a mystery. Perhaps we should just accept the reality of consciousness as a basic given of existence. But if we cannot define it in terms of its components, at least we can trace its origins, and the consequences it has had for human life.

During the course of evolution one of the characteristic achievements of living matter has been the ability to represent external and internal events in such a way that the organism can respond to them adaptively. The senses—sight, hearing, the ability to feel pain and pleasure—help animals orient themselves in the environment, to seek out what is good for them and avoid what is not. But when the architecture of the brain reaches a certain point, after the physiological development of the nervous system reaches a certain threshold of complexity, its functional capacity appears to take a quantum leap. Besides representing external and internal conditions so that the organism can respond to them, it now also can represent to itself its own internal processes. This evolutionary benchmark is reflexive consciousness.

After an organism develops consciousness, its life becomes enormously more complicated. It is no longer ruled exclusively by univocal "instincts" or "drives," by the genetically programmed instructions that selective pressures have painstakingly inscribed on its chromosomes over millions of years. Now it can experience inner conflict, because two often contradictory voices call on it at the same time.

But by representing stimuli in the medium of consciousness, humans have succeeded in placing some distance between themselves and the determining forces that shape their behavior. Consciousness acts in some respects as a clutch, a mechanism that makes it possible to disengage cause from effect. A hungry man who is tempted to steal to satisfy his need may stop and consider alternatives, and even if none are found may decide to countermand his genetic instructions in order to achieve some other goal—such as keeping out of jail or preserving his integrity.

The bifurcation of human nature that consciousness introduced has had enormous consequences. In one sense, it has freed us from innumerable limitations that otherwise would have restricted our experiences to what a narrow ecological niche would have offered—similar, perhaps, to that of the world of African baboons roaming

the savanna. The ability to control information in consciousness—to stop sensations and retain them in the mind, even after the stimulus that produced them has gone; to play with ideas, knowing that they are hypothetical constructions of the mind—has liberated the species from its biological moorings. Humans were not built to fly, and biological selection has for eons steered us toward an exclusively terrestrial existence. Yet we started to dream of soaring, and eventually we found ways to break the bonds of gravity and realized that dream.

At the same time, consciousness gave us powers that we were not equipped by evolution to handle. We have not had time to learn where the safe limits of this newfound freedom are, what safeguards and conditions should mitigate the consequences of a runaway imagination. For instance, during the last few thousand years, as humankind has become aware of its ability to separate itself from the rest of creation, and to disrupt other life processes at will, it started to think of itself as the master of the planet, a superspecies whose whims and comfort take precedence over the laws of nature and the requirements of other forms of life.

The wisdom of many traditions warns of the dangers inherent in such delusions of superiority. Pride plunged Lucifer into the abyss, and the wings of Icarus dissolved when he tried to approach the sun. Now that we see more clearly how dependent our survival is on some of the most humble entities of the planet—on ozone molecules flitting far above the earth, on tiny plankton floating below the surface of the sea—perhaps we shall learn enough about the uses and misuses of power to avoid a similar fate.

Consciousness did not empower humankind directly. Its effects took a long time to appear, and they were expressed through the development of culture—more specifically, the development of systems for storing information outside the brain, in forms accessible to it. Songs, dances, cave paintings, alphabets, arithmetic rules, laws, religions, technology and science—all of these symbol systems preserve important personal insights, translated into shared signs that can be stored extrasomatically. Preserved in a public medium, the information is easily accessed and thus readily disseminated; and because it can be transmitted over time, it allows the cumulation of learning. If what happened in consciousness had remained locked in the mind of each individual, the evolution of humankind would have taken a very different, much less dramatic course. But the sharing and condensing of experience through culture allowed the exponential growth of knowledge.

Thus at this point we obey two parallel sets of instructions. One

is carved in the genes, and it directs us to behave in accord with the wisdom derived from the millions of years during which our ancestors struggled to survive. The other set of instructions is contained in *memes,* which is the name the biologist Richard Dawkins gave to units of information that are transmitted through learning rather than through chemical codes embedded in chromosomes. Words, numbers, the Ten Commandments, the Pythagorean theorem, the concept of democracy, the first bars of Beethoven's Fifth Symphony, and the recipe for apple pie are all memes, because they contain specific information with implied instructions to behave in certain ways; and this information is something that passes from consciousness to consciousness through learning, not through direct genetic transmission. Sometimes memes and genes tell us to do the same thing, and their instructions reinforce each other: for example, when both "instincts" and cultural mores recommend mating and having children. But often the instructions are at cross-purposes with each other, as when a religious meme directs the martyr to give up his or her life, whereas the genetically inherited desire for self-preservation suggests a different course of action.

The Organization of Consciousness

We have grown used to the idea that organisms compete for scarce resources to ensure their own survival and that of their offspring. Recently we have grown accustomed as well to the idea that genes also struggle to express their potential and to reproduce their form of organization over time, sometimes at the expense of the individual organisms that serve as their hosts. The same competition seems to exist among memes. Ideas, habits, customs, beliefs, works of art, and scientific theories do not exist in a vacuum; they share a common cultural ecosystem where the resources are limited, and therefore the continued existence of each idea or artifact is dependent on that of the others.

The scarce resource for which memes compete is space in consciousness. Attention, which selects what we can be conscious of, is limited: we can attend to only a few bits of information at any given moment. Memes that cannot attract any attention at all are eventually forgotten and disappear as organized units of information. The Etruscan and the Latin languages competed with each other for centuries in central Italy, until the Romans destroyed all the written traces of Etruscan that they could find, and what's left no longer has any meaning to convey; it has become a dead language. Etruscan genes are probably still active in the Italian gene pool, but Etruscan

memes—except for what has been preserved in visual art, and then interpreted by sympathetic viewers such as D. H. Lawrence—have to all intents and purposes vanished.

When several memes convey the same information, but one among them is easier to remember or to work with, that is the one that will be remembered and transmitted because it will save scarce psychic energy. For example, to take a very simple case, in the past many different systems for measuring distances, weights, and volumes coexisted independently of each other. In 1799 France adopted the metric system "for all people, for all time" because it simplified comparison among various units of measurement. It took seventy-six more years for the other European countries to adopt the system. One hundred years later still, Great Britain and Canada succumbed, while the United States remains to this day unconverted. But the laws of cultural evolution suggest that eventually the metric system will displace equivalent mimetic "alleles" because it saves space in the mind.

Consciousness is not, by its nature, a well-ordered, stable entity. If left to itself, chaos always threatens to engulf it. Sensory-deprivation experiments show how labile our control over what goes on in the mind actually is; hallucinations take over very quickly as soon as the usual props available to the senses are withdrawn. In everyday life, people tend to panic when they have nothing definite to do. Usually the demands of work, interaction with other people, or information packaged by the media keep attention focused and consciousness ordered. But when left to themselves in "free" time, most people do not know what to pay attention to, how to occupy their minds. What typically happens then is that random thoughts begin to intrude into consciousness, and since these are generally unconnected with the person's goals and desires, an unpleasant mood descends on the unsuspecting thinker.

Almost a century ago, Sandor Ferenczi, one of Freud's star disciples, noted with surprise the prevalence of "Sunday neuroses," or the tendency on the part of the Viennese bourgeoisie to have mental breakdowns on their day of rest. In my studies, I came by entirely independent paths to similar findings: American adults tend to have their worst moods late Sunday mornings. This seems to be due to the fact that on Sunday morning, after they have had breakfast and read the papers—and unless they go to church—most people lack a "script" for the rest of the day. As they wonder what to do, their thoughts get progressively more chaotic and their feelings more glum. This state of mind reaches a nadir between 10 A.M. and noon. After that time, people usually snap out of the doldrums by

deciding on a course of action, such as mowing the lawn, cleaning the attic, visiting relatives, or watching a football or baseball game: in other words, they restore order in consciousness by focusing attention on a manageable goal. It seems sad (but true) that the human mind does not seem well equipped to handle its freedom.

To keep consciousness from splintering into random fragments, memes everywhere have become organized in larger aggregates, or "idea systems," which correspond to more or less coherent cultures. Cultures are defensive constructions against chaos in at least three senses. At the macro level of society, the shared memes provide common values, meanings, and means to achieve goals, thereby preserving order among individuals. At the intermediate level, they provide meaningful goals to live by, thereby preserving order within the consciousness of individuals across time. And finally at the micro level, cultures keep chaos from intruding into consciousness by providing minute-by-minute patterns for investing attention. The value of material success, for instance, is a meme that may help organize the economy, the politics, and the institutions of an entire society. The same meme may give a sense of purpose to the life of many individuals who invest all their energies in the task of being successful. And the person who selects this meme will not need to dread free time, because he or she will want to fill each spare moment with efforts to reach this goal.

As soon as consciousness achieves some form of inner order, its main goal becomes that of preserving it. Persons whose consciousness is structured in terms of material success will identify the self with getting ahead and will wish to avoid failure above all else because that is the greatest threat to their integrity. On the other hand, those who have built the self around the goal of helping other people will fear, more than anything else, information suggesting they are selfish because that would destroy the basis on which their consciousness is organized. To preserve the integrity of the self may take precedence over keeping the body alive; in such cases, the instructions of the memes override genetic instructions.

Human ingenuity has discovered innumerable variations by which to organize consciousness. Anthropologists have described literally thousands of cultures, each with values, norms, and behaviors that appear exceedingly exotic when viewed from another culture. But it may be possible also to recognize a few basic patterns in the way memes have been historically arranged. For instance, Pitirim Sorokin, the Russian-born sociologist who at Harvard pioneered the systematic comparison of cultures, has tried to show that, in looking

at Europe's roughly twenty-seven centuries of recorded history, it is possible to distinguish two main alternating principles and their numerous permutations.

The first pattern is what Sorokin called the *sensate* one; it describes a culture in which people trust the empirical evidence of their senses above all else, find beauty in the harmony of physical forms, and believe that the goal of life is to maximize individual well-being. The other main pattern is what Sorokin called the *ideational.* In cultures of this type, people tend to believe in truth backed by faith or reason more than in truth that rests on empirical evidence; they find beautiful what *expresses* ideas rather than actual forms; their goal in life is to fulfill ideals rather than to achieve physical well-being.

His detailed investigations led Sorokin to conclude that, contrary to what one might think, sensate worldviews have not been expanding relentlessly in the West; rather, they seem to have alternated through the centuries with ideational systems based either on faith or on reason. For instance, in philosophy the belief in materialistic first principles in philosophy (a trait of sensate cultures) was rather prevalent between 600 B.C. and 100 A.D., after which it became discredited; it then regained prominence in the 1700s. Conversely, the heyday of idealism in philosophical first principles, by Sorokin's reckoning, was between 200 A.D. and the end of the fifteenth century. In ethics, personal happiness tended to be accepted as the basis for morality between 500 B.C. and 100 B.C.—whatever felt good was the right thing to do. Then, after a lapse of sixteen centuries, during which ethics tended to be based either on principles or on love for others, it reappeared to justify morality in the 1500s.

Sorokin may have been too ambitious in trying to label entire centuries of history as primarily sensate or ideational; however, he was probably right in pointing out that these two basic ways of organizing consciousness are forever locked in a dialectical dance, opposing and completing each other, like the Chinese concepts of yin and yang.

Certainly in our own day, when empirical materialism and eudaemonistic ethics seem to permeate the population, on closer analysis one sees ample evidence of restlessness, with the ideational worldview seething below the surface. People everywhere thirst after ideals in which to invest their psychic energy; they hunger after some faith that will give meaning to the short span of their years. In our culture we can see the struggle between sensate and ideational principles in the debate between creationists and evolutionists, between those who support and those who oppose abortion. Persons who believed it was better to be dead than Red were

espousing an ideational worldview, as are those who take astrology seriously, or contribute to televangelists, or try to cure broken bones through prayer, or believe deep down that in a prior life they were a great pharaoh. In other words, probably a great majority of the population.

In other cultures, the evidence for a continuing struggle between these two ways of organizing consciousness is even more obvious. The waves of fanatical ideology that have swept through China, or the rebirth of Islam, are well-known examples. Less dramatic is the resurgence of interest, even in technologically advanced societies, in ways of thinking and living that are less informed by scientific knowledge than by faith. I was quite surprised, for instance, when I found out that in one of the most progressive medical schools in South America many of the doctors I spoke to preferred to consult traditional witches when they got ill rather than each other.

It would be a mistake, however, to assume that, because many manifestations of ideational consciousness look back to traditional beliefs, this entire mode of thought is doomed to obsolescence and will be replaced eventually by a purely sensate set of memes. The record suggests that unease with the limitations of materialism is also rife among many elite scientists, writers, astronauts, politicians, professionals, and other individuals who have been thoroughly socialized into empiricism. It is as if a sensate worldview cannot by itself provide a principle of organization that will keep consciousness in an ordered state for long.

The Dangers of Trusting Our Senses

Epistemological justification based on the evidence of the senses seems beyond question. If we cannot trust our eyes, ears, the pleasure and pain centers in our brain, what can we trust? In fact, the delicate and sophisticated apparatus that our nervous system has developed over the ages for representing events as sensations is perhaps our most remarkable birthright. Without it our species could hardly have survived, and certainly it could not have achieved the complex adaptation it has now reached. Yet there are good reasons to believe that this excellent guide alone cannot guide us safely into the future.

There are two reasons why an exclusively material worldview is dangerous. One is common to all principles by which consciousness may be organized, whereas the other is specific to sensate idea systems. Looking at the one shared by all worldviews, we see that as soon as a way of ordering memes becomes accepted in a human community, the stage is set for people to "parasitize" each other

under the cover of common values. If a religion is accepted as the highest principle, self-seeking people will flock under its banner, claiming to be more religious than anyone else so as to achieve power and privilege. The lives of certain popes and many ancient bishops, or the recent exploits of counterfeit spiritual leaders such as the Bakkers or Jimmy Swaggart, are good examples. In a warlike culture, a coward who displays cruelty is often taken as someone who embodies the virtues of a warrior, and is given power accordingly. In a society where science and knowledge are held in high esteem, useless pedants often get great respect and exploit the credibility of the populace.

It is very difficult to tell mimetic parasites from the real thing if one operates exclusively in terms of a single set of values. Those who exploit others' need for an ordered consciousness are usually very clever at claiming legitimacy for their goals. Just to stay within my own expertise, all university researchers worth their salt can defend the necessity of funding their research with utter conviction. They can prove that what they are planning to do is well within the traditions of empirical science, that the methods are adequate, the instrumentation is up to date, and the significance of the expected results—well, that too is within the customary boundaries (which may not be saying much).

From inside the empirical scientific camp it is difficult to argue with these claims. Even though most researchers may concede (in private) that much of what passes for science is a boondoggle, they are bound by the memes they share with the dubious investigators to respect the latters' claims. Only a differently organized consciousness can mount a radical critique of a given worldview. The situation is somewhat similar to what Kurt Gödel proved for mathematics: that any logical mathematical system must contain propositions that can neither be proved nor disproved, using only the assumptions of that system. Hence, no mathematical system is entirely self-contained. The affinity with the present case is that some of the basic tenets of any worldview cannot be evaluated from within that worldview because to question them would endanger the very order of consciousness they are there to preserve.

For instance, if one is committed to a sensate view, it makes no sense to question whether, under certain conditions, it would be preferable to give up a pleasant life for the sake of an idea. Nor would it make sense for a committed ideologue to wonder whether it is worth giving up his abstractions for the sake of a better material life. At least two points of view are needed to triangulate the value of a meme, and for this reason the adherence to any one worldview, any single

epistemology, any hermetically sealed value system, tends to be dangerous.

The second limitation of a purely sensate worldview is specific to its empirical, materialist, eudaemonistic orientation. Our senses can tell us what has been good for us in the distant past, but they are not trained to see us in the future. The wisdom of the senses is directed by needs that have served us in past predicaments; but some of them have become obsolete and others have turned into disadvantages under current conditions of life. Self-interest, as we understand it at present, may spell our doom a few years from now.

The picture of the world the senses disclose is limited by the accidents of our evolutionary history; they can only show us what we needed to know in our old environments. What appears to us as a concrete, ultimate reality of sights , sounds, and tangible things is in fact only a relative view, limited by the decoding capacity of our sensory organs. For instance, we cannot see the delicate web of ecological relationships that enables life to go on; we cannot see the feelings of love or solidarity that bind people together; there is no way to get indisputable sensory evidence about the meanings that make life worth living. Yet as long as we cannot represent to ourselves in a credible way these dimensions of experience, we only get a very partial view of reality.

To trust only memes that refer to material entities—to the satisfaction of needs, to the evidence of the senses—blinds us to some of the aspects of reality that are most important for the survival of humankind and for its evolution. To do so would imprison us in a pragmatic present from which it would be very difficult to move into the future. Perhaps there will come a time, many generations from now, when our genes will enable us to tell whether a person is honest, or whether an action is disinterested, with the same immediate clarity with which we can now tell whether a person is tall or short. In the meantime, we have to rely for such information on memes that refer to entities not yet amenable to material representation. These include the various "spiritual" values that in the past have supported Sorokin's ideational civilizations, and that must be recovered if they are to serve our future needs.

Spiritual values are memes—ideas, symbols, beliefs, instructions for action that can be passed on from person to person—that bring us out of the present, out of ourselves. The best of them take the material limitations of our genes into account, but at the same time point to possibilities to which our biological inheritance is not yet sensitive. The sensate deals with what *is,* the ideational—or

spiritual—with what *could be*. Ideational art, for instance, tries to organize sounds, or forms, or words so that they will represent something that has never happened before, that we otherwise could never imagine, and that transforms our consciousness in the direction of greater complexity. The person who has seen one of the great Gothic cathedrals, or listened to a Bach chorale, or read Dante's *Commedia* has intimations of possible states of being he or she could not have had in a world where only the actual mattered.

The essence of spirituality consists in an effort to pry consciousness loose from the thrall of genetic instructions. The injunctions of the Decalogue, like the disciplines of Yoga (or of practically all known religions), try to restructure consciousness so that attention will not be invested exclusively in its "natural" channels. The traditional Christian catalogue of deadly sins contains memes that attempt to counteract excessive indulgence in behavior that, biologically speaking, is "good for us." The injunction against pride is a curb on the universal need to achieve dominance; the one against covetousness is an effort to deemphasize the inclination to ownership and territoriality; against lust, a containment of the natural propensity for reproduction to expand into sexuality for its own sake; against gluttony, a way to prevent the innate pleasure of eating from taking up too much time; against anger, an effort to contain the natural inclination to attack our opponents; and against sloth, a warning that the natural relief sought through resting can easily be carried too far. The assumption on which such spiritual instructions are founded is that, left to itself, the biological organism will spend all its psychic energy in securing goals it was programmed to achieve, such as feeding, sex, competition for dominance, and so on. But this would leave no attention for exploring new possibilities. Therefore appropriate memes must be developed to redirect psychic energy away from its customary objectives, so that some energy will be available for experimenting with new states of being.

In a consciousness structured along ideational principles, the Archimedean point—the fulcrum, so to speak, in terms of which events and actions can be evaluated and thus initiated—has been moved outside the organism. What is true or false, good or bad, right or wrong, beautiful or ugly, is no longer decided exclusively with reference to internal criteria, to what instincts or self-interest suggest. To achieve this fundamental change is not an easy task. In the first place, the momentum of millions of years of evolution prompts us to follow the instructions of the genes. We are programmed to enjoy food, sex, power, and possessions—why should we give any of them up? Besides, if sensate wisdom has seen us this far, why should we

abandon it now? And where, if not inside ourselves, can we find this Archimedean point that will allow us to leverage the future?

THE BASIS OF IDEATIONAL SYSTEMS

In order to provide an alternative to the world revealed by the senses, ideational systems have traditionally posited the existence of an otherworldly reality beyond the reach of direct experience. Every religion, as the great French sociologist Emile Durkheim has argued, relies on a distinction between entities, forces, and attributes that are either *sacred* or *profane.* The realm of the sacred contains memes that refer to things we intuitively believe to be important but do not understand, and instructions about how we should behave with reference to them. But for spirituality to exist, it is essential that material values should not have jurisdiction over what is sacred.

This basic dialectic is necessary to maintain the dynamics of consciousness. If the realm of the sacred were approachable through sensate knowledge, and evaluated only in terms of what we now hold to have material value, it would eventually come under our control and become a reflection of ourselves as we currently are. At that point the spiritual realm loses its *sui generis* function, ceases to exert its evolutionary pull, and the sensate culture, having victoriously assimilated all possibilities into itself, reaches either a plateau or a dead end.

At the same time, the boundary between what is sacred and what is not sacred is constantly shifting. As phenomena become better understood by our senses and through the conceptual models that are their extension, they lose their mysterious quality and become incorporated into the province of the secular. For example, the Australian aborigines' livelihood depended on the yearly monsoon, whose brief rains replenished the water holes, revived the vegetation, and allowed the animals to prosper. They developed a very rich ideational system around the power of Yurlungur, the enormous snake-god (made of clouds), who each year emerged from the ocean to fertilize their land. By developing complex ritual relations to this powerful force, the aborigines could order their consciousness and look with confidence to a future that otherwise would have seemed bleak and meaningless. Now that science can explain in material terms how rain rises from the sea and how water stimulates the growth of vegetation, the monsoon is likely to lose its sacred character and become part of the secular world. In many ways, the course of human evolution has been marked by the secularization of the sacred.

This is why it is so important that a reverse process, a sacralization

of the secular, should also be constantly in effect. Without it, one of the essential poles of the evolutionary dialectic will eventually be lost. The transition from pagan, animistic beliefs to the great world religions was a phase in this process of desacralization and resacralization. As the sun, the moon, and the stars were discovered to follow orbits that could be calculated, as the nature of fire and other elements was better understood, and as animals were domesticated, the totemic world was gradually demystified and its territory annexed to the province of the profane.

Monotheism replaced the myriad powers that accounted for material phenomena (each of which was understood and propitiated in a different way) with the conception of a single, all-powerful Being. In evolutionary terms, this spiritual consolidation represented an enormous saving of psychic energy (in comparison, the savings obtained by replacing conflicting yardsticks with the metric system is, or course, a tiny achievement). The meteoric rise of Islam in the seventh century is a good example of how the fusion of spiritual energies can generate material energy. Before Muhammad, the sanctuary in Mecca was lined with shrines for over three hundred idols, each demanding its own rites and rituals. Religious allegiances divided clans and individuals, and required complicated and often contradictory practices. After Muhammad proclaimed that God is one, religion helped focus the attention of society on common goals and became the basis of Arab unity. The psychic energy released from the conflict among spiritual aims found an outlet in the military conquest, political organization, literature, art, and philosophy that made the backward Arab tribes a world center of civilization.

But the sacredness lost by the natural environment as paganism waned reappeared as an attribute of human consciousness. In the great world religions, the mantle of mystery and dignity falls on the shoulders of humankind. Men and women are seen to be closer to the Supreme Being than the rest of creation, and God acquires anthropomorphic characteristics. Through their souls, men and women share the sacred quality of their maker. The task that the great religions present to the believer is how to refine and maintain the sacredness of the soul so that it can be rejoined, after the demise of the body, with the great power that rules the universe.

Just as more than twenty centuries ago natural science helped to desacralize nature, the human sciences in the last two centuries have come a long way toward removing the mystery that had surrounded humanity itself. Darwin, Marx, Freud and their many followers have undermined belief in the uniqueness of our species, in our virtues, and in our rationality. While behaviorists analyze our actions into

mechanical responses that do not require a mind, let alone a soul, behavioral geneticists and neuropharmacologists are steadily mapping the chemical bases of those responses. At the end of all this work the human organism will be laid out in rows of neatly labeled pieces, like the parts of a machine in a museum exhibit; it is unlikely that one of the pieces will be labeled "Soul."

When this happens—there is no doubt that the process is well under way—will no grounds be left on which to build an ideational system? Will we have lost that Archimedean point outside the body, the one that has so often helped humankind lift itself with a fulcrum resting in the unknown? If consciousness is to be filled by memes referring to what the senses can comprehend, there is reason to be skeptical about our ability to face the future with hope and purpose.

Toward a New Spirituality

Every age must learn to translate its intimations of the realm beyond the senses into forms that are understandable to people who have reached a certain point in the evolution of culture. Even though the memes representing the (as yet) unknown are not to be understood by rational or empirical means, they must have currency in the world of the senses. To claim *Credo quia absurdum* is a valiant act of faith, but no ideational system can survive by asking people to believe what they think is absurd. As humankind's ability to conceptualize the unknown changes, so must the memes that represent the ideational realm. What, then, is likely to be the form of the spiritual in the twenty-first century?

Henry Adams wrote that the huge dams and electric generators of his day were the equivalent of what Chartres and the other great Gothic cathedrals had been centuries earlier. Just as men and women of the Middle Ages built enormous structures in which they worshiped supernatural energy, personified by Christ and Mary, modern men and women built temples in which the powerful energies of their time are concentrated. Though attractive, this analogy misses the point: Steam and electricity are creations of sensate science, and they serve material needs; their power is decidedly of this world. Not even the more ethereal and bizarre scientific structures of our time, such as the many-miles-long supercolliders in which invisible particles are ambushed, or the enormous radio-telescope antennae set to capture signals from outer space, are likely to serve as temples for a new spirituality. Even though they were built to usher in the unknown, their main function is to secularize it, to tame it in the

service of present needs. They have no words to speak about ways of being that we have not tried.

Nor is it probable that a new ideational system will emerge from the mystique of the state—even though many recent totalitarian regimes, from those of Mussolini and Hitler to those of Stalin and Mao, have tried to shroud their power in the metaphysical trappings of a chosen race or an inevitable historical movement. These strategies are regressive because the sacredness of the tribe is one of the earliest forms in which spirituality is expressed. Their fatal weakness is that they are divisive. While they can engender belief in one's destiny, this must come at the expense of the "other." We can expect occasional returns to tribalism, but no new universal belief to come from it.

It is perhaps more likely that a new ideational system will arise from the resacralization of the natural environment. This would not be some form of neopaganism, a return to animistic conceptions of the powers of living things. Rather, it is likely to involve a realization of the interconnectedness of various forms of organic and inorganic matter, and hence a reconceptualization of who we are. From this perspective, humankind is the temporary spearhead of the evolutionary process, the life-form whose complex consciousness has enabled it to change and, in principle, destroy all life on earth. During our stewardship, we can either set our house in order and prepare for the next evolutionary phase or we can go on insisting that our needs, our rights, and our desires be satisfied, no matter at what price. Potentially, this realization contains the germ of a new spirituality. The issue is no longer what one shall do to save one's soul, but how to preserve life and the evolution of complexity in its ever-changing forms.

The great world religions introduced (in various forms) the ideas of the universal church and human solidarity. The new spirituality is likely to take these concepts a step further. *Universal* is no longer a figure of speech, now that we are beginning to sense the links extending all the way from the tiny mitochondria that live in our cells to the vista of ever-expanding galaxies. There are many words to describe this transformation: *world openness, ecological consciousness, global awareness.* They all describe gropings toward the integration of the self with the energy that flows through creation. The old idea of brotherhood is expanded into "beinghood."

It could be argued, however, that it is premature to worry about a new spirituality when the old one has still so far to run. Why worry about the rest of the universe when we are so far from having achieved the "brotherhood of man," or even a decent relationship

between members of the same family? But this argument is based on sensate logic. From an ideational perspective, one would predict that relations among human beings will not improve unless there is a shared belief in a destiny beyond the immediate satisfaction of self-interest. And the "nature of man" or the concept "humankind" no longer possesses enough spiritual meaning to provide such a belief. Thus it might be that, by reducing the relative importance of human beings, by contextualizing them in the broad stream of the flow of complexity, we shall achieve greater respect and more genuine charity for each other.

Thus the most solid basis for a new spirituality might turn out to be something like Teilhard de Chardin's Omega Point, the point toward which evolution seems to be converging, the point of highest complexity—of the greatest differentiation with the greatest integration of matter and of consciousness. This concept is truly sacred in that it tries to represent the most inclusive view of reality, one that we cannot as yet behold with our senses, yet which does not contradict what the senses tell us.

Much would need to be accomplished for these intimations to result in an ideational system that will help humankind through the coming centuries. In the first place, the spiritual vision will have to be couched in memes that make it accessible and attractive to an increasing number of people. The enormous scope of reality—both the part accessible to our minds and the even larger, still inaccessible part— has to be conveyed with a concreteness that takes roots in everyday consciousness. Similarly, the interconnectedness of life, the fact that we are but one strand in the tapestry of creation, also has to be taken for granted. And the awareness of evolution should become second nature, as a process that shapes the course of life, a process which we are both subject to and responsible for.

But shifting from an anthropocentric to a posthuman perspective is just a beginning. To develop into a viable ideational system, the evolutionary worldview would need to define goals accessible to everyone. It would have to specify the "good life" in terms of its vision, then outline a moral system that follows from its principles. It would have to provide meaningful and satisfying practices—such as prayer and rituals, as provided in the past—to bring the experience of the sacred into touch with the senses.

To be in accord with what evolution seems to be, such a system will have to respect three conditions. First, it would need to provide an integration of sensate and ideational ways of seeing reality: an integration that, while respecting the basic differences between the sacred and the profane, attempts to keep the dialectic between them

alive. In Sorokin's terms, this combination results in an *idealistic* civilization, a synthesis of the sensate and the ideational poles. In such a civilization, the cold emptiness of materialism is leavened by spiritual values while the fanaticism endemic to purely ideational systems is corrected by the evidence of the senses.

Second, the system will have to reflect the evolution of complexity and the importance of consciousness in this process. Studies of what I have called the *flow* state of optimal experience show that people feel best when they do things that make them feel involved, concentrated, and competent—whether the activity involves such things as sports, music, meditation, or mountain climbing. Flow experiences engage individual skills through clear and challenging demands for action and thus produce a dynamic state of consciousness that requires a constant rebalancing of the ratio between challenge and skills. They are ways for people to test the limits of their being, to transcend their former conception of self by extending skills and undergoing new experiences.

Since the ability to match ever-complexifying skills with challenges produces feelings of enjoyment and achievement that lead to a stronger and more confident sense of self, activities that produce flow become self-rewarding, or "autotelic." People wish to repeat flow experiences even when they present risks, and delay gratification until the activity starts to provide intrinsic rewards. The fact that people seek out flow experiences even in the absence of material rewards illustrates the fact that we need more than the fulfillment of genetically and socially conditioned needs. The flow state is a paradigm for the future because, while it lasts, people lose their self-conscious sense of individuality and often report a feeling of union with entities larger than the self, such as a team, the natural environment, or even the cosmos.

Third and finally, a new spirituality will move the fulcrum of its worldview from the human being to the network of beings, to the process of evolution itself. Rather than soloist, humankind becomes a part of the choir; what shall count most is not its individual part but the harmony of the whole. A new ethics will have to account for the interests of as many forms of life as possible; also, it will have to consider the sacredness of the inorganic conditions that make life possible. It will have to reconcile human nature with the laws of the universe as we know them, and it will have to find ways to represent those stern laws in ways we can accept without understanding why.

Many will argue that what is suggested here as a new spirituality would not really be new. Indeed, in many important ways the seeds for such an idea system are already contained in religious doctrines

or in secular, humanistic attitudes. This is of course always the case: continuities in evolution, whether cultural or biological, are much more prevalent than discontinuities. The memes we use to represent the future were largely created in the past.

It is likely, however, that restructuring consciousness along the lines suggested above would force us to reconsider many issues from a new perspective with renewed intensity. If preserving the conditions of life is sacred, what of the sacredness of individual life? Which takes precedence, and under what conditions? What stance shall one take on overpopulation, abortion, the prolongation of life at all costs, the accumulation of deadly weapons and poisonous waste, conspicuous consumption, the wanton exhaustion of necessary resources? And if the complexity of consciousness is to be valued above all else, would the concepts of individual liberty and equality, made sacred by the Enlightenment and the French Revolution, still be the leading principles of social and political thought? And if the human ceased to be the measure of all things, what would our rights and responsibilities be in the new scheme? How much disruption should be allowed in the dynamic balance of nature to satisfy human greed and ambition?

None of these questions will be easy to answer. But it is not easy to do so even now, although the need to take a stand is becoming ever more urgent. The sensate wisdom that has led us for the past few centuries seems incapable of proposing a hopeful course of action. Yet our continued survival, and the possibility of future growth, are hanging in the balance. Unless consciousness is rebuilt so as to draw guidance from outside ourselves, it will be difficult to agree on the correct direction. Guidance is sorely needed if we are to find a way across the deep precipices our sophisticated senses have revealed in our path, precipices for which our escalating powers are in part responsible.

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