

The Book On Taboo of Knowing Who You Are

by
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Preface

This book explores an unrecognized but mighty taboo--our tacit conspiracy to ignore who, or what, we really are. Briefly, the thesis is that the prevalent sensation of oneself as a separate ego enclosed in a bag of skin is a hallucination which accords neither with Western science nor with the experimental philosophy religions of the East--in particular the central and germinal Vedanta philosophy of Hinduism. This hallucination underlies the misuse of technology for the violent subjugation of man's natural environment and, consequently, its eventual destruction.

We are therefore in urgent need of a sense of our own existence which is in accord with the physical facts and which overcomes our feeling of alienation from the universe. For this purpose I have drawn on the insights of Vedanta, stating them, however, in a completely modern and Western style--so that this volume makes no attempt to be a textbook on or introduction to Vedanta in the ordinary sense. It is rather a cross-fertilization of Western science with an Eastern intuition.

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ALAN WATTS Sausalito, California January, 1966

Chapter 1

I Inside Information

Just what should a young man or woman know in order to be "in the know"? Is there, in other words, some inside information, some special taboo, some real lowdown on life and existence that most parents and teachers either don't know or won't tell?

In Japan it was once customary to give young people about to be married a "pillow book." This was a small volume of wood-block prints, often colored, showing all the details of sexual intercourse. It wasn't just that, as the Chinese say, "one picture is worth ten thousand words." It was also that it spared parents the embarrassment of explaining these intimate matters face-to-face. But today in the West you can get such information at any newsstand. Sex is no longer a serious taboo. Teenagers sometimes know more about it than adults.

But if sex is no longer the big taboo, what is? For there is always something taboo, something repressed unadmitted, or just glimpsed quickly out of the corner of one's eye because a direct look is too unsettling. Taboos lie within taboos, like the skins of an onion. What, then, would be The Book which fathers might slip to their sons and mothers to their daughters without ever admitting it openly?

In some circles there is a strong taboo on religion, even in circles where people go to church or read the Bible. Here, religion is one's own private business. It is bad form or uncool to talk or argue about it, and very bad indeed to make a big show of piety. Yet when you get in on the inside of almost any standard-brand religion, you wonder what on earth the hush was about. Surely The Book I have in mind wouldn't be the Bible, "the Good Book"--that fascinating anthology of ancient wisdom, history, and fable which has for so long been treated as a Sacred Cow that it might well be locked up for a century or two so that men could hear it again with clean ears. There are indeed secrets in the Bible, and some very subversive ones, but they are all so muffled up in complications, in archaic symbols and ways of thinking, that Christianity has become incredibly difficult to explain to a modern person. That is, unless you are content to water it down to being good and trying to imitate Jesus, but no one ever explains just how to do that. To do it you must have a particular power from God known as "grace," but all that we really know about grace is that some get it and some don't.

The standard-brand religions, whether Jewish, Christian, Mohammedan, Hindu, or Buddhist, are--as now practiced--like exhausted mines: very hard to dig. With some exceptions not too easily found, their ideas about man and the world, their imagery, their rites, and their notions of the good life don't seem to fit in with the universe as we now know it, or with a human world that is changing so rapidly that much of what one learns in school is already obsolete on graduation day.

The Book I'm thinking about would not be religious in the usual sense, but it would have to discuss many things with which religions have been concerned--the universe and man's place in it, the mysterious center of experience which we call "I myself," the problems of life and love, pain and death, and the whole question of whether existence has meaning in any sense of the word. For there is a growing apprehension that existence is a rat-race in a trap: living organisms, including people, are merely tubes which put things in at one end and let them out at the other, which both keeps them doing it and in the long run wears them out. So to keep the farce going, the tubes find ways of making new tubes, which also put things in at one end and let them out at the other. At the input end they even develop ganglia of nerves called brains, with eyes and ears, so that they can more easily scrounge around for things to swallow. And when they get enough to eat, they use up their surplus energy by wiggling in complicated patterns, making all sorts of noises by blowing air in and out of the input hole, and gathering together in groups to fight with other groups. In time, the tubes grow such an abundance of attached appliances that they are hardly recognizable as mere tubes, and they manage to do this in a staggering variety of forms. There is a vague rule not to eat tubes of your own form, but in general there is serious competition as to who is going to be the top type of tube. All this seems marvelously futile, and yet, when you begin to think about it, it begins to be more marvelous than futile. Indeed, it seems extremely odd.

It is a special kind of enlightenment to have this feeling that the usual, the way things normally are, is odd--uncanny and highly improbable. G. K. Chesterton once said that it is one thing to be amazed at a gorgon or a griffin, creatures which do not exist; but it is quite another and much higher thing to be amazed at a rhinoceros or a giraffe, creatures which do exist and look as if they don't. This feeling of universal oddity includes a basic and intense wondering about the sense of things. Why, of all possible worlds, this colossal and apparently unnecessary multitude of galaxies in a mysteriously curved space-time continuum, these myriads of differing tube-species playing frantic games of one-upmanship, these numberless ways of "doing it" from the elegant architecture of the snow crystal or the diatom to the startling magnificence of the lyrebird or the peacock?

Ludwig Wittgenstein and other modern "logical" philosophers have tried to suppress this question by saying that it has no meaning and ought not to be asked. Most philosophical problems are to be solved by getting rid of them, by coming to the point where you see that such questions as "Why this universe?" are a kind of intellectual neurosis, a misuse of words in that the question sounds sensible but is actually as meaningless as asking "Where is this universe?" when the only things that are anywhere must be somewhere inside the universe. The task of philosophy is to cure people of such nonsense, Wittgenstein, as we shall see, had a point there. Nevertheless wonder is not a disease. Wonder, and its expression in poetry and the arts, are among the most important things which seem to distinguish men from other animals and intelligent and sensitive people from morons.

Is there, then, some kind of a lowdown on this astounding scheme of things, something that never really gets out through the usual channels for the Answer--the historic religions and philosophies? There is. It has been said again and again, but in such a fashion that we, today, in this particular civilization do not hear it. We do not realize that it is utterly subversive, not so much in the political and moral sense, as in that it turns our ordinary view of things, our common sense, inside out and upside down. It may of course have political and moral consequences, but as yet we have no clear idea of what they may be. Hitherto this inner revolution of the mind has been confined to rather isolated individuals; it has never, to my knowledge, been widely characteristic of communities or societies. It has often been thought too dangerous for that. Hence the taboo.

But the world is in an extremely dangerous situation, and serious diseases often require the risk of a dangerous cure--like the Pasteur serum for rabies. It is not that we may simply blow up the planet with nuclear bombs, strangle ourselves with overpopulation, destroy our natural resources through poor conservation, or ruin the soil and its products with improperly understood chemicals and pesticides. Beyond all these is the possibility that civilization may be a huge technological success, but through methods that most people will find baffling, frightening, and disorienting--because, for one reason alone, the methods will keep changing. It may be like playing a game in which the rules are constantly changed without ever being made clear--a game from which one cannot withdraw without suicide, and in which one can never return to an older form of the game.

But the problem of man and technics is almost always stated in the wrong way. It is said that humanity has evolved one-sidedly, growing in technical power without any comparable growth in moral integrity, or, as some would prefer to say, without comparable progress in education and rational thinking. Yet the problem is more basic. The root of the matter is the way in which we feel and conceive ourselves as human beings, our sensation of being alive, of individual existence and identity. We suffer from a hallucination, from a false and distorted sensation of our own existence as living organisms. Most of us have the sensation that "I myself" is a separate center of feeling and action, living inside and bounded by the physical body--a center which "confronts an" "external" world of people and things, making contact through the senses with a universe both alien and strange. Everyday figures of speech reflect this illusion. "I came into this world." "You must face reality." "The conquest of nature."

This feeling of being lonely and very temporary visitors in the universe is in flat contradiction to everything known about man (and all other living organisms) in the sciences. We do not "come into" this world; we come out of it, as leaves from a tree. As the ocean "waves," the universe "peoples." Every individual is an expression of the whole realm of nature, a unique action of the total universe. This fact is rarely, if ever, experienced by most individuals. Even those who know it to be true in theory do not sense or feel it, but continue to be aware of themselves as isolated "egos" inside bags of skin.

The first result of this illusion is that our attitude to the world "outside" us is largely hostile. We are forever "conquering" nature, space, mountains, deserts, bacteria, and insects instead of learning to cooperate with them in a

harmonious order. In America the great symbols of this conquest are the bulldozer and the rocket--the instrument that batters the hills into flat tracts for little boxes made of tacky -tacky and the great phallic projectile that blasts the sky. (Nonetheless, we have fine architects who know how to fit houses into hills without ruining the landscape, and astronomers who know that the earth is already way out in space, and that our first need for exploring other worlds is sensitive electronic instruments which, like our eyes, will bring the most distant objects into our own brains.)¹ The hostile attitude of conquering nature ignores the basic interdependence of all things and events--that the world beyond the skin is actually an extension of our own bodies--and will end in destroying the very environment from which we emerge and upon which our whole life depends.

The second result of feeling that we are separate minds in an alien, and mostly stupid, universe is that we have no common sense, no way of making sense of the world upon which we are agreed in common. It's just my opinion against yours, and therefore the most aggressive and violent (and thus insensitive) propagandist makes the decisions. A muddle of conflicting opinions united by force of propaganda is the worst possible source of control for a powerful technology.

It might seem, then, that our need is for some genius to invent a new religion, a philosophy of life and a view of the world, that is plausible and generally acceptable for the late twentieth century, and through which every individual can feel that the world as a whole and his own life in particular have meaning. This, as history has shown repeatedly, is not enough. Religions are divisive and quarrelsome. They are a form of one-upmanship because they depend upon separating the "saved" from the "damned," the true believers from the heretics, the in-group from the out-group. Even religious liberals play the game of "we -re-more-tolerant-than-you." Furthermore, as systems of doctrine, symbolism, and behavior, religions harden into institutions that must command loyalty, be defended and kept "pure,--and-because all belief is fervent hope, and thus a cover-up for doubt and uncertainty-religions must make converts. The more people who agree with us, the less nagging insecurity about our position. In the end one is committed to being a Christian or a Buddhist come what may in the form of new knowledge. New and indigestible ideas have to be wangled into the religious tradition, however inconsistent with its original doctrines, so that the believer can still take his stand and assert, "I am first and foremost a follower of Christ/Mohammed/Buddha, or whomever." Irrevocable commitment to any religion is not only intellectual suicide; it is positive unfaith because it closes the mind to any new vision of the world. Faith is, above all, open-ness --an act of trust in the unknown.

An ardent Jehovah's Witness once tried to convince me that if there were a God of love, he would certainly provide mankind with a reliable and infallible textbook for the guidance of conduct. I replied that no considerate God would destroy the human mind by making it so rigid and unadaptable as to depend upon one book, the Bible, for all the answers. For the use of words, and thus of a book, is to point beyond themselves to a world of life and experience that is not mere words or even ideas. Just as money is not real, consumable wealth, books are not life. To idolize scriptures is like eating paper currency.

Therefore The Book that I would like to slip to my children would itself be slippery. It would slip them into a new domain, not of ideas alone, but of experience and feeling. It would be a temporary medicine, not a diet; a point of departure, not a perpetual point of reference. They would read it and be done with it, for if it were well and clearly written they would not have to go back to it again and again for hidden meanings or for clarification of obscure doctrines.

We do not need a new religion or a new bible. We need a new experience--a new feeling of what it is to be "I." The lowdown (which is, of course, the secret and profound view) on life is that our normal sensation of self is a hoax or, at best, a temporary role that we are playing, or have been conned into playing-- with our own tacit consent, just as every hypnotized person is basically willing to be hypnotized. The most strongly enforced of all known taboos is the taboo against knowing who or what you really are behind the mask of your apparently separate, independent, and isolated ego. I am not thinking of Freud's barbarous Id or Unconscious as the actual reality behind the facade of personality. Freud, as we shall see, was under the influence of a nineteenth-century fashion called "reductionism," a curious need to put down human culture and intelligence by calling it a fluky by-product of blind and irrational forces. They worked very hard, then, to prove that grapes can grow on thornbushes.

As is so often the way, what we have suppressed and overlooked is something startlingly obvious. The difficulty is that it is so obvious and basic that one can hardly find the words for it. The Germans call it a *Hintergedanke*, an apprehension lying tacitly in the back of our minds which we cannot easily admit, even to ourselves. The sensation of "I" as a lonely and isolated center of being is so powerful and commonsensical, and so fundamental to our modes of speech and thought, to our laws and social institutions, that we cannot experience selfhood except as something superficial in the scheme of the universe. I seem to be a brief light that flashes but once in all the aeons of time--a rare, complicated, and all-too-delicate organism on the fringe of biological evolution, where the wave of life bursts into individual, sparkling, and multicolored drops that gleam for a moment only to vanish forever. Under such conditioning it seems impossible and even absurd to realize that myself does not reside in the drop alone, but in the whole surge of energy which ranges from the galaxies to the nuclear fields in my body. At this level of existence "I" am immeasurably old; my forms are infinite and their comings and goings are simply the pulses or vibrations of a single and eternal flow of energy.

¹ "I do not believe that anything really worthwhile will come out of the exploration of the slag heap that constitutes the surface of the moon . . . Nobody should imagine that the enormous financial budget of NASA implies that astronomy is now well supported." Fred Hoyle, *Galaxies, Nuclei, And Quasars*. Harper & Row, New York, 1965.

The difficulty in realizing this to be so is that conceptual thinking cannot grasp it. It is as if the eyes were trying to look at themselves directly, or as if one were trying to describe the color of a mirror in terms of colors reflected in the mirror. Just as sight is something more than all things seen, the foundation or "ground" of our existence and our awareness cannot be understood in terms of things that are known. We are forced, therefore, to speak of it through myth-- that is, through special metaphors, analogies, and images which say what it is like as distinct from what it is. At one extreme of its meaning, "myth" is fable, falsehood, or superstition. But at another, "myth" is a useful and fruitful image by which we make sense of life in somewhat the same way that we can explain electrical forces by comparing them with the behavior of water or air. Yet "myth," in this second sense, is not to be taken literally, just as electricity is not to be confused with air or water. Thus in using myth one must take care not to confuse image with fact, which would be like climbing up the signpost instead of following the road.

Myth, then, is the form in which I try to answer when children ask me those fundamental metaphysical questions which come so readily to their minds: "Where did the world come from?" "Why did God make the world?" "Where was I before I was born?" "Where do people go when they die?" Again and again I have found that they seem to be satisfied with a simple and very ancient story, which goes something like this:

"There was never a time when the world began, because it goes round and round like a circle, and there is no place on a circle where it begins. Look at my watch, which tells the time; it goes round, and so the world repeats itself again and again. But just as the hour-hand of the watch goes up to twelve and down to six, so, too, there is day and night, waking and sleeping, living and dying, summer and winter. You can't have any one of these without the other, because you wouldn't be able to know what black is unless you had seen it side-by-side with white, or white unless side-by-side with black.

"In the same way, there are times when the world is, and times when it isn't, for if the world went on and on without rest for ever and ever, it would get horribly tired of itself. It comes and it goes. Now you see it; now you don't. So because it doesn't get tired of itself, it always comes back again after it disappears. It's like your breath: it goes in and out, in and out, and if you try to hold it in all the time you feel terrible. It's also like the game of hide-and-seek, because it's always fun to find new ways of hiding, and to seek for someone who doesn't always hide in the same place.

"God also likes to play hide-and-seek, but because there is nothing outside God, he has no one but himself to play with. But he gets over this difficulty by pretending that he is not himself. This is his way of hiding from himself. He pretends that he is you and I and all the people in the world, all the animals, all the plants, all the rocks, and all the stars. In this way he has strange and wonderful adventures, some of which are terrible and frightening. But these are just like bad dreams, for when he wakes up they will disappear.

"Now when God plays hide and pretends that he is you and I, he does it so well that it takes him a long time to remember where and how he hid himself. But that's the whole fun of it--just what he wanted to do. He doesn't want to find himself too quickly, for that would spoil the game. That is why it is so difficult for you and me to find out that we are God in disguise, pretending not to be himself. But when the game has gone on long enough, all of us will wake up, stop pretending, and remember that we are all one single Self--the God who is all that there is and who lives for ever and ever.

"Of course, you must remember that God isn't shaped like a person. People have skins and there is always something outside our skins. If there weren't, we wouldn't know the difference between what is inside and outside our bodies. But God has no skin and no shape because there isn't any outside to him. [With a sufficiently intelligent child, I illustrate this with a Mobius strip--a ring of paper tape twisted once in such a way that it has only one side and one edge.] The inside and the outside of God are the same. And though I have been talking about God as 'he' and not 'she,' God isn't a man or a woman. I didn't say 'it' because we usually say 'it' for things that aren't alive.

"God is the Self of the world, but you can't see God for the same reason that, without a mirror, you can't see your own eyes, and you certainly can't bite your own teeth or look inside your head. Your self is that cleverly hidden because it is God hiding.

"You may ask why God sometimes hides in the form of horrible people, or pretends to be people who suffer great disease and pain. Remember, first, that he isn't really doing this to anyone but himself. Remember, too, that in almost all the stories you enjoy there have to be bad people as well as good people, for the thrill of the tale is to find out how the good people will get the better of the bad. It's the same as when we play cards. At the beginning of the game we shuffle them all into a mess, which is like the bad things in the world, but the point of the game is to put the mess into good order, and the one who does it best is the winner. Then we shuffle the cards once more and play again, and so it goes with the world."

This story, obviously mythical in form, is not given as a scientific description of the way things are. Based on the analogies of games and the drama, and using that much worn-out word "God" for the Player, the story claims only to be like the way things are. I use it just as astronomers use the image of inflating a black balloon with white spots on it for the galaxies, to explain the expanding universe. But to most children, and many adults, the myth is at once intelligible, simple, and fascinating. By contrast, so many other mythical explanations of the world are crude, tortuous, and unintelligible. But many people think that believing in the unintelligible propositions and symbols of their religions is the test of true faith. "I believe," said Tertullian of Christianity, "because it is absurd."

People who think for themselves do not accept ideas on this kind of authority. They don't feel commanded to believe in miracles or strange doctrines as Abraham felt commanded by God to sacrifice his son Isaac. As T. George Harris put it:

The social hierarchies of the past, where some boss above you always punished any error, conditioned men to feel a chain of harsh authority reaching all the way "up there." We don't feel this bond in today's egalitarian freedom. We don't even have, since Dr. Spock, many Jehovah-like fathers in the human family. So the average unconscious no longer learns to seek forgiveness from a wrathful God above.

But, he continues--

Our generation knows a cold hell, solitary confinement in this life, without a God to damn or save it. Until man figures out the trap and hunts . . . "the Ultimate Ground of Being," he has no reason at all for his existence. Empty, finite, he knows only that he will soon die. Since this life has no meaning, and he sees no future life, he is not really a person but a victim of self-extinction."²

"The Ultimate Ground of Being" is Paul Tillich's decontaminated term for God" and would also do for "the Self of the world" as I put it in my story for children. But the secret which my story slips over to the child is that the Ultimate Ground of Being is you. Not, of course, the everyday you which the Ground is assuming, or "pretending" to be, but that inmost Self which escapes inspection because it's always the inspector. This, then, is the taboo of taboos you re IT!

Yet in our culture this is the touchstone of insanity, the blackest of blasphemies, and the wildest of delusions. This, we believe, is the ultimate in megalomania--an inflation of the ego to complete absurdity. For though we cultivate the ego with one hand, we knock it down with the other. From generation to generation we kick the stuffing out of our children to teach them to "know their place" and to behave, think, and feel with proper modesty as befits one little ego among many. As my mother used to say, "You're not the only pebble on the beach." Anyone in his right mind who believes that he is God should be crucified or burned at the stake, though now we take the more charitable view that no one in his right mind could believe such nonsense. Only a poor idiot could conceive himself as the omnipotent ruler of the world, and expect everyone else to fall down and worship.

But this is because we think of God as the King of the Universe, the Absolute Technocrat who personally and consciously controls every detail of his cosmos-- and that is not the kind of God in my story. In fact, it isn't my story at all, for any student of the history of religions will know that it comes from ancient India, and is the mythical way of explaining the Vedanta philosophy. Vedanta is the teaching of the Upanishads, a collection of dialogues, stories, and poems, most of which go back to at least 800 B.C. Sophisticated Hindus do not think of God as a special and separate superperson who rules the world from above, like a monarch. Their God is "underneath" rather than "above" everything, and he (or it) plays the world from inside. One might say that if religion is the opium of the people, the Hindus have the inside dope. What is more, no Hindu can realize that he is God in disguise without seeing at the same time that this is true of everyone and everything else. In the Vedanta philosophy, nothing exists except God. There seem to be other things than God, but only because he is dreaming them up and making them his disguises to play hide-and-seek with himself. The universe of seemingly separate things is therefore real only for a while, not eternally real, for it comes and goes as the Self hides and seeks itself.

But Vedanta is much more than the idea or the belief that this is so. It is centrally and above all the experience, the immediate knowledge of its being so, and for this reason such a complete subversion of our ordinary way of seeing things. It turns the world inside out and outside in. Likewise, a saying attributed to Jesus runs:

When you make the two one, and
when you make the inner as the outer
and the outer as the inner and the above
as the below . . .
then shall you enter [the Kingdom] . . .
I am the Light that is above
them all, I am the All,
the All came forth from Me and the All
attained to Me. Cleave [a piece of] wood, I
am there; lift up the stone and you will
find Me there.³

Today the Vedanta discipline comes down to us after centuries of involvement with all the forms, attitudes, and symbols of Hindu culture in its flowering and slow demise over nearly 2,800 years, sorely wounded by Islamic fanaticism and corrupted by British puritanism. As often set forth, Vedanta rings no bell in the West, and attracts mostly the fastidiously spiritual and diaphanous kind of people for whom incarnation in a physical body is just too disgusting to be borne.⁴ But it is possible to state its essentials in a present day idiom, and when this is done without exotic trappings, Sanskrit terminology, and excessive postures of spirituality, the message is not only clear to people with no special interest in "Oriental religions"; it is also the very jolt that we need to kick ourselves out of our isolated sensation of self.

² A discussion of the views of theologian Paul Tillich in "The Battle of the Bible," Look, Vol. XIX, No. 15, July 27, 1965, P. 19.

³ A. Guillaumont and others (trs.), The Gospel According to Thomas. Harper & Row, New York, 1959, pp. 17-18, 43. A recently discovered Coptic manuscript, possibly translated from a Greek version as old as A.D. 140. The "I" and the "Me" are obvious references to the disguised Self.

⁴ I said "mostly" because I am aware of some very special exceptions both here and in India.

But this must not be confused with our usual ideas of the practice of "unselfishness," which is the effort to identify with others and their needs while still under the strong illusion of being no more than a skin-contained ego. Such "unselfishness" is apt to be a highly refined egotism, comparable to the in-group which plays the game of "we're-more-tolerant-than-you." The Vedanta was not originally moralistic; it did not urge people to ape the saints without sharing their real motivations or to ape motivations without sharing the knowledge which sparks them.

For this reason The Book I would pass to my children would contain no sermons, no shoulds and oughts. Genuine love comes from knowledge, not from a sense of duty or guilt. How would you like to be an invalid mother with a daughter who can't marry because she feels she ought to look after you, and therefore hates you? My wish would be to tell, not how things ought to be, but how they are, and how and why we ignore them as they are. You cannot teach an ego to be anything but egotistic, even though egos have the subtlest ways of pretending to be reformed. The basic thing is therefore to dispel, by experiment and experience, the illusion of oneself as a separate ego. The consequences may not be behavior along the lines of conventional morality. It may well be as the squares said of Jesus, "Look at him! A glutton and a drinker, a friend of tax-gatherers and sinners."

Furthermore, on seeing through the illusion of the ego, it is impossible to think of oneself as better than, or superior to, others for having done so. In every direction there is just the one Self playing its myriad games of hide-and-seek. Birds are not better than the eggs from which they have broken. Indeed, it could be said that a bird is one egg's way of becoming other eggs. Egg is ego, and bird is the liberated Self. There is a Hindu myth of the Self as a divine swan which laid the egg from which the world was hatched. Thus I am not even saying that you ought to break out of your shell. Sometime, somehow, you (the real you, the Self) will do it anyhow, but it is not impossible that the play of the Self will be to remain unawakened in most of its human disguises, and so bring the drama of life on earth to its close in a vast explosion. Another Hindu myth says that as time goes on, life in the world gets worse and worse, until at last the destructive aspect of the Self, the god Shiva, dances a terrible dance which consumes everything in fire. There follow, says the myth, 4,320,000 years of total peace during which the Self is just itself and does not play hide. And then the game begins again, starting off as a universe of perfect splendor which begins to deteriorate only after 1,728,000 years, and every round of the game is so designed that the forces of darkness present themselves for only one third of the time, enjoying at the end a brief but quite illusory triumph. Today we calculate the life of this planet alone in much vaster periods, but of all ancient civilizations the Hindus had the most imaginative vision of cosmic time. Yet remember, this story of the cycles of the world's appearance and disappearance is myth, not science, parable rather than prophecy. It is a way of illustrating the idea that the universe is like the game of hide-and-seek.

If, then, I am not saying that you ought to awaken from the ego-illusion and help save the world from disaster, why The Book? Why not sit back and let things take their course? Simply that it is part of "things taking their course" that I write. As a human being it is just my nature to enjoy and share philosophy. I do this in the same way that some birds are eagles and some doves, some flowers lilies and some roses. I realize, too, that the less I preach, the more likely I am to be heard.

Chapter 2

II The Game of Black-And-White

When we were taught 1, 2, 3 and A, B, C, few of us were ever told about the Game of Black-and-White. It is quite as simple, but belongs to the hushed-up side of things. Consider, first, that all your five senses are differing forms of one basic sense--something like touch. Seeing is highly sensitive touching. The eyes touch, or feel, light waves and so enable us to touch things out of reach of our hands. Similarly, the ears touch sound waves in the air, and the nose tiny particles of dust and gas. But the complex patterns and chains of neurons which constitute these senses are composed of neuron units which are capable of changing between just two states: on or off. To the central brain the individual neuron signals either yes or no--that's all. But, as we know from computers which employ binary arithmetic in which the only figures are 0 and 1, these simple elements can be formed into the most complex and marvelous patterns.

In this respect our nervous system and 0/1 computers are much like everything else, for the physical world is basically vibration. Whether we think of this vibration in terms of waves or of particles, or perhaps wavicles, we never find the crest of a wave without a trough or a particle without an interval, or space, between itself and others. In other words, there is no such thing as a half wave, or a particle all by itself without any space around it. There is no on without off, no up without down.

Although sounds of high vibration seem to be continuous, to be pure sound, they are not. Every sound is actually sound/silence, only the ears don't register this consciously when the alternation is too rapid. It appears only in, say, the lowest audible notes of an organ. Light, too, is not pure light, but light/darkness. Light pulsates in waves, with their essential up/ down motion, and in some conditions the speed of light vibrations can be synchronized with

other moving objects so that the latter appear to be still. This is why arc lights are not used in sawmills, for they emit light at a pulse which easily synchronizes with the speed of a buzz saw in such a way that its teeth seem to be still.

While eyes and ears actually register and respond to both the up-beat and the down-beat of these vibrations, the mind, that is to say our conscious attention, notices only the up-beat. The dark, silent, or "off" interval is ignored. It is almost a general principle that consciousness ignores intervals, and yet cannot notice any pulse of energy without them. If you put your hand on an attractive girl's knee and just leave it there, she may cease to notice it. But if you keep patting her knee, she will know you are very much there and interested. But she notices and, you hope, values the on more than the off. Nevertheless, the very things that we believe to exist are always on/off. On's alone and off's alone do not exist.

Many people imagine that in listening to music they hear simply a succession of tones, singly, or in 23 clusters called chords. If that were true, as it is in the exceptional cases of tone-deaf people, they would hear no music, no melody whatsoever—only a succession of noises. Hearing melody is hearing the intervals between the tones, even though you may not realize it, and even though these particular intervals are not periods of silence but "steps" of varying length between points on the musical scale. These steps or intervals are auditory spaces, as distinct from distance-spaces between bodies or time-spaces between events.

Yet the general habit of conscious attention is, in various ways, to ignore intervals. Most people think, for example, that space is "just nothing" unless it happens to be filled with air. They are therefore puzzled when artists or architects speak of types and properties of space, and more so when astronomers and physicists speak of curved space, expanding space, finite space, or of the influence of space on light or on stars. Because of this habit of ignoring space-intervals, we do not realize that just as sound is a vibration of sound/silence, the whole universe (that is, existence) is a vibration of solid/space. For solids and spaces go together as inseparably as insides and outsides. Space is the relationship between bodies, and without it there can be neither energy nor motion.

If there were a body, just one single ball, with no surrounding space, there would be no way of conceiving or feeling it as a ball or any other shape. If there were nothing outside it, it would have no outside. It might be God, but certainly not a body! So too, if there were just space alone with nothing in it, it wouldn't be space at all. For there is no space except space between things, inside things, or outside things. This is why space is the relationship between bodies.

Can we imagine one lonely body, the only ball in the universe in the midst of empty space? Perhaps. But this ball would have no energy, no motion. In relation to what could it be said to be moving? Things are said to move only when compared with others, that are relatively still, for motion is motion/stillness. So let's have two balls, and notice that they come closer to each other, or get further apart. Sure, there is motion now, but which one is moving? Ball one, ball two, or both? There is no way of deciding. All answers are equally right and wrong. Now bring in a third ball. Balls one and two stay the same distance apart, but ball three approaches or retreats from them. Or does it? Balls one and two may be moving together, towards or away from three, or balls one and two may be approaching three as three approaches them, so that all are in motion. How are we to decide? One answer is that because balls one and two stay together, they are a group and also constitute a majority. Their vote will therefore decide who is moving and who is not. But if three joins them it can lick 'em, for if all three stay the same distance apart, the group as a whole cannot move. It will even be impossible for any one to say to the other two, or any two to the other one, "Why do you keep following me (us) around?" For the group as a whole will have no point of reference to know whether it is moving or not.

Note that whereas two balls alone can move only in a straight line, three balls can move within a surface, but not in three dimensions. The moment we add a fourth ball we get the third dimension of depth, and now it would seem that our fourth ball can stand apart from the other three, take an objective view of their behavior, and act as the referee. Yet, when we have added the fourth, which one is it? Any one of them can be in the third dimension with respect to the other three. This might be called a "first lesson in relativity," for the principle remains the same no matter how many balls are added and therefore applies to all celestial bodies in this universe and to all observers of their motion, wheresoever located. Any galaxy, any star, any planet, or any observer can be taken as the central point of reference, so that everything is central in relation to everything else!

Now in all this discussion, one possibility has been overlooked. Suppose that the balls don't move at all, but that the space between them moves. After all, we speak of a distance (i.e., space) increasing or decreasing as if it were a thing that could do something. This is the problem of the expanding universe. Are the other galaxies moving away from ours, or ours from them, or all from each other? Astronomers are trying to settle the problem by saying that space itself is expanding. But, again, who is to decide? What moves, the galaxies or the space? The fact that no decision can be reached is itself the clue to the answer: not just that both the galaxies and space are expanding (as if they were two different agents), but something which we must clumsily call galaxies/space, or solid/space, is expanding.

The problem comes up because we ask the question in the wrong way. We supposed that solids were one thing and space quite another, or just nothing whatever. Then it appeared that space was no mere nothing, because solids couldn't do without it. But the mistake in the beginning was to think of solids and space as two different things, instead of as two aspects of the same thing. The point is that they are different but inseparable, like the front end and the rear end of a cat. Cut them apart, and the cat dies. Take away the crest of the wave, and there is no trough.

A similar solution applies to the ancient problem of cause and effect. We believe that everything and every event must have a cause, that is, some other thing(s) or event(s), and that it will in its turn be the cause of other effects. So how does a cause lead to an effect? To make it much worse, if all that I think or do is a set of effects,

there must be causes for all of them going back into an indefinite past. If so, I can't help what I do. I am simply a puppet pulled by strings that go back into times far beyond my vision.

Again, this is a problem which comes from asking the wrong question. Here is someone who has never seen a cat. He is looking through a narrow slit in a fence, and, on the other side, a cat walks by. He sees first the head, then the less distinctly shaped furry trunk, and then the tail. Extraordinary! The cat turns round and walks back, and again he sees the head, and a little later the tail. This sequence begins to look like something regular and reliable. Yet again, the cat turns round, and he witnesses the same regular sequence: first the head, and later the tail. Thereupon he reasons that the event head is the invariable and necessary cause of the event tail, which is the head's effect. This absurd and confusing gobbledygook comes his failure to see that head and tail go together: they are all one cat.

The cat wasn't born as a head which, some time later, caused a tail; it was born all of a piece, a head-tailed cat. Our observer's trouble was that he was watching it through a narrow slit, and couldn't see the whole cat at once.

The narrow slit in the fence is much like the way in which we look at life by conscious attention, for when we attend to something we ignore everything else. Attention is narrowed perception. It is a way of looking at life bit by bit, using memory to string the bits together--as when examining a dark room with a flashlight having a very narrow beam. Perception thus narrowed has the advantage of being sharp and bright, but it has to focus on one area of the world after another, and one feature after another. And where there are no features, only space or uniform surfaces, it somehow gets bored and searches about for more features. Attention is therefore something like a scanning mechanism in radar or television, and Norbert Wiener and his colleagues found some evidence that there is a similar process in the brain.

But a scanning process that observes the world bit by bit soon persuades its user that the world is a great collection of bits, and these he calls separate things or events. We often say that you can only think one thing at a time. The truth is that in looking at the world bit by bit we convince ourselves that it consists of separate things, and so give ourselves the problem of how these things are connected and how they cause and effect each other. The problem would never have arisen if we had been aware that it was just our way of looking at the world which had chopped it up into separate bits, things, events, causes, and effects. We do not see that the world is all of a piece like the head-tailed cat.

We also speak of attention as noticing. To notice is to select, to regard some bits of perception, or some features of the world, as more noteworthy, more significant, than others. To these we attend, and the rest we ignore--for which reason conscious attention is at the same time ignore-ance (i.e., ignorance) despite the fact that it gives us a vividly clear picture of whatever we choose to notice. Physically, we see, hear, smell, taste, and touch innumerable features that we never notice. You can drive thirty miles, talking all the time to a friend. What you noticed, and remembered, was the conversation, but somehow you responded to the road, the other cars, the traffic lights, and heaven knows what else, without really noticing, or focussing your mental spotlight upon them. So too, you can talk to someone at a party without remembering, for immediate recall, what clothes he or she was wearing, because they were not noteworthy or significant to you. Yet certainly your eyes and nerves responded to those clothes. You saw, but did not really look.

It seems that we notice through a double process in which the first factor is a choice of what is interesting or important. The second factor, working simultaneously with the first, is that we need a notation for almost anything that can be noticed. Notation is a system of symbols--words, numbers, signs, simple images (like squares and triangles), musical notes, letters, ideographs (as in Chinese), and scales for dividing and distinguishing variations of color or of tones. Such symbols enable us to classify our bits of perception. They are the labels on the pigeonholes into which memory sorts them, but it is most difficult to notice any bit for which there is no label. Eskimos have five words for different kinds of snow, because they live with it and it is important to them. But the Aztec language has but one word for snow, rain, and hail.

What governs what we choose to notice? The first (which we shall have to qualify later) is whatever seems advantageous or disadvantageous for our survival, our social status, and the security of our egos. The second, again working simultaneously with the first, is the pattern and the logic of all the notation symbols which we have learned from others, from our society and our culture. It is hard indeed to notice anything for which the languages available to us (whether verbal, mathematical, or musical) have no description. This is why we borrow words from foreign languages. There is no English word for a type of feeling which the Japanese call *yugen*, and we can only understand by opening our minds to situations in which Japanese people use the word.⁵

There must then be numberless features and dimensions of the world to which our senses respond without our conscious attention, let alone vibrations (such as cosmic rays) having wave-lengths to which our senses are not tuned at all. To perceive all vibrations at once would be pandemonium, as when someone slams down all the keys of the piano at the same time. But there are two ignored factors which can very well come into our awareness, and our ignorance of them is the mainstay of the ego-illusion and of the failure to know that we are each the one Self in disguise. The first is not realizing that so-called opposites, such as light and darkness, sound and silence, solid and space, on and off, inside and outside, appearing and disappearing, cause and effect, are poles or aspects of the same thing. But we have no word for that thing, save such vague concepts as Existence, Being, God, or the Ultimate Ground of Being. For the most part these remain nebulous ideas without becoming vivid feelings or experiences.

⁵ "To watch the sun sink behind a flower-clad hill, to wander on and on in a huge forest without thought of return, to stand upon the shore and gaze after a boat that disappears behind distant islands, to contemplate the flight of wild geese seen and lost among the clouds." (Seami) All these are *yugen*, but what have they in common?

The second, closely related, is that we are so absorbed in conscious attention, so convinced that this narrowed kind of perception is not only the real way of seeing the world, but also the very basic sensation of oneself as a conscious being, that we are fully hypnotized by its disjointed vision of the universe. We really feel that this world is indeed an assemblage of separate things that have somehow come together or, perhaps, fallen apart, and that we are each only one of them. We see them all alone--born alone, dying alone--maybe as bits and fragments of a universal whole, or expendable parts of a big machine. Rarely do we see all so-called things and events "going together." like the head and tail of the cat, or as the tones and inflections--rising and falling, coming and going--of a single singing voice.

In other words, we do not play the Game of Black-and-White--the universal game of up/down, on/off. solid/space, and each/all. Instead, we play the game of Black-versus-White or, more usually, White-versus Black. For, especially when rates of vibration are slow as with day and night or life and death, we are forced to be aware of the black or negative aspect of the world. Then, not realizing the inseparability of the positive and negative poles of the rhythm, we are afraid that Black may win the game. But the game "White must win" is no longer a game. It is a fight--a fight haunted by a sense of chronic frustration, because we are doing something as crazy as trying to keep the mountains and get rid of the valleys.

The principal form of this fight is Life-versus-Death, the so-called battle for survival, which is supposed to be the real, serious task of all living creatures. This illusion is maintained (a) because the fight is temporarily successful (we go on living until we don't), and (b) because living requires effort and ingenuity, though this is also true of games as distinct from fights. So far as we know, animals do not live in constant anxiety about sickness and death, as we do, because they live in the present. Nevertheless, they will fight when in hunger or when attacked. We must, however, be careful of taking animals as models of "perfectly natural" behavior. If "natural" means "good" or "wise," human beings can improve on animals, though they do not always do so.

But human beings, especially in Western civilization, make death the great bogey. This has something to do with the popular Christian belief that death will be followed by the dread Last Judgment, when sinners will be consigned to the temporary horrors of Purgatory or the everlasting agony of Hell. More usual, today, is the fear that death will take us into everlasting nothingness--as if that could be some sort of experience, like being buried alive forever. No more friends, no more sunlight and birdsong, no more love or laughter, no more ocean and stars --only darkness without end.

Do not go gentle into that good night . . .
Rage, rage against the dying of the light.

Imagination cannot grasp simple nothingness and must therefore fill the void with fantasies, as in experiments with sensory deprivation where subjects are suspended weightlessly in sound- and light-proof rooms. When death is considered the final victory of Black over White in the deadly serious battle of "White must win, the fantasies which fill the void are largely ghoulish- Even our popular fantasies of Heaven are on the grim side, because the usual image of God is of a very serious and awesome Grandfather, enthroned in a colossal church-and, of course, in church one may decorously "rejoice- but not have real, rip-roaring fun.

O what their joy and their glory must be,
Those endless Sabbaths the blessed ones see. .

Who wants to be stuck in church, wearing a surplice, and singing "Alleluia" forever? Of course, the images are strictly symbolic, but we all know how children feel about the old-time Protestant Sabbath, and God's Good Book bound in black with its terrible typography. Intelligent Christians outgrow this bad imagery, but in childhood it has seeped into the unconscious and it continues to contaminate our feelings about death.

Individual feelings about death are conditioned by social attitudes, and it is doubtful that there is any one natural and inborn emotion connected with dying. For example, it used to be thought that childbirth should be painful, as a punishment for Original Sin or for having had so much fun conceiving the baby. For God had said to Eve and all her daughter "In sorrow thou shalt bring forth children." Thus when everyone believed that in having a baby it was a woman's duty to suffer, women did their duty, and many still do. We were much surprised, therefore, to find women in "primitive" societies who could just squat down and give birth while working in the field, bite the umbilical cord, wrap up the baby, and go their way. It wasn't that their women were tougher than ours, but just that they had a different attitude. For our own gynecologists have recently discovered that many women can be conditioned psychologically for natural and painless childbirth. The pains of labor are renamed "tensions," and the mother-to-be is given preparatory exercises in relaxing to tension and cooperating with it. Birth, they are told, is not a sickness. One goes to a hospital just in case anything should go wrong, though many avant-garde gynecologists will let their patients give birth at home.

Premature death may come as a result of sickness, but--like birth--death as such is not a sickness at all. It is the natural and necessary end of human life--as natural as leaves falling in the autumn. (Perpetual leaves are, as we know, made of plastic, and there may come a time when surgeons will be able to replace all our organs with plastic

substitutes, so that you will achieve immortality by becoming a plastic model of yourself.) Physicians should therefore explore the possibility of treating death and its pangs as they have treated labor and its "pains."

Death is, after all, a great event. So long as it is not imminent, we cling to ourselves and our lives in chronic anxiety, however pushed into the back of the mind. But when the time comes where clinging is no longer of the least avail, the circumstances are ideal for letting go of oneself completely. When this happens, the individual is released from his ego-prison. In the normal course of events this is the golden opportunity for awakening into the knowledge that one's actual self is the Self which plays the universe--an occasion for great rejoicing. But as customs now prevail, doctors, nurses, and relatives come around with smiling masks, assuring the patient that he will soon get over it, and that next week or next month he will be back home or taking a vacation by the sea. Worse still, physicians have neither the role nor the training for handling death. The Catholic priest is in a much better position: he usually knows just how to go about it, with no fumbling or humming and hawing. But the physician is supposed to put off death at all costs--including the life savings of the patient and his family.

Ananda Coomaraswamy once said that he would rather die ten years too early than ten minutes too late--too late, and too decrepit or drugged, to seize the opportunity to let oneself go, to "lay me down with a will." "I pray," he used to say, "that death will not come and catch me unannihilate"--that is, before I have let go of myself. This is why G. I. Gurdjieff, that marvelous rascal-sage, wrote in his *All and Everything*:

The sole means now for the saving of the beings of the planet Earth would be to implant again into their presences a new organ . . . of such properties that every one of these unfortunates during the process of existence should constantly sense and be cognizant of the inevitability of his own death as well as the death of everyone upon whom his eyes or attention rests.

Only such a sensation and such a cognizance can now destroy the egoism completely crystallized in them.

As we now regard death this reads like a prescription for a nightmare. But the constant awareness of death shows the world to be as flowing and diaphanous as the filmy patterns of blue smoke in the air--that there really is nothing to clutch and no one to clutch it. This is depressing only so long as there remains a notion that there might be some way of fixing it, of putting it off just once more, or hoping that one has, or is, some kind of ego-soul that will survive bodily dissolution. (I am not saying that there is no personal continuity beyond death--only that believing in it keeps us in bondage.)

This is no more saying that we ought not to fear death than I was saying that we ought to be unselfish. Suppressing the fear of death makes it all the stronger. The point is only to know, beyond any shadow of doubt, that "I" and all other "things" now present will vanish, until this knowledge compels you to release them--to know it now as surely as if you had just fallen off the rim of the Grand Canyon. Indeed, you were kicked off the edge of a precipice when you were born, and it's no help to cling to the rocks falling with you. If you are afraid of death, be afraid. The point is to get with it, to let it take over--fear, ghosts, pains, transience, dissolution, and all. And then comes the hitherto unbelievable surprise: you don't die because you were never born. You had just forgotten who you are.

All this comes much more easily with the collaboration of friends. When we are children, our other selves, our families, friends, and teachers, do everything possible to confirm us in the illusion of separateness--to help us to be genuine fakes, which is precisely what is meant by "being a real person." For the person, from the Latin *persona*, was originally the megaphone-mouthed mask used by actors in the open-air theaters of ancient Greece and Rome, the mask through (per) which the sound (sonus) came. In death we doff the persona, as actors take off their masks and costumes in the green room behind the scenes. And just as their friends come behind the stage to congratulate them on the performance, so one's own friends should gather at the deathbed to help one out of one's mortal role, to applaud the show, and, even more, to celebrate with champagne or sacraments (according to taste) the great awakening of death.

There are many other ways in which the Game of Black-and-White is switched into the game of "White must win," and, like the battle for survival, they depend upon ignoring, or screening out of consciousness, the interdependence of the two sides. In a curious way this is, of course, part of the Game of Black-and-White itself, because forgetting or ignoring their interdependence is "hide" in the game of hide-and-seek. Hide-and-seek is, in turn, the Game of Black-and-white.!

By way of illustration, we can take an excursion into an aspect of science-fiction which is very rapidly becoming science-fact. Applied science may be considered as the game of order-versus-chance (or, order-versus-randomness), especially in the domain of cybernetics--the science of automatic control. By means of scientific prediction and its technical applications, we are trying to gain maximum control over our surroundings and ourselves. In medicine, communications, industrial production, transportation, finance, commerce, housing, education, psychiatry, criminology, and law we are trying to make foolproof systems, to get rid of the possibility of mistakes. The more powerful technology becomes, the more urgent the need for such controls, as in the safety precautions taken for jet aircraft, and, most interesting of all, the consultations between technicians of the Atomic Powers to be sure that no one can press the Button by mistake. The use of powerful instruments, with their vast potentialities for changing man and his environment, requires more and more legislation, licensing, and policing, and thus more and more complex procedures for inspection and keeping records. Great universities, for example, have vice-presidents in charge of relations with the government and large staffs of secretaries to keep up with the mountains of paperwork involved. At times, the paper-work, recording what has been done, seems to become more

important than what it records. Students' records in the registrar's office are often kept in safes and vaults, but not so the books in the library--unless extremely rare or dangerous. So, too, the administration building becomes the largest and most impressive structure on the campus, and faculty members find that more and more of their time for teaching and research must be devoted to committee meetings and form-filling to take care of the mere mechanics of running the institution.

For the same reasons, it is ever more difficult to operate a small business which cannot afford to take care of the financial and legal red-tape which the simplest enterprises must now respect. The ease of communication through such mass media as television, radio, books, and periodicals enables a single, articulate individual to reach millions. Yet the telephone and the post office enable a formidable fraction of those millions to talk back, which can be flattering and pleasing, except that there is no way of giving individual replies--especially when correspondents seek advice for personal or specialized problems. Only the President or the Prime Minister or the heads of huge corporations can afford the staff and machinery to cope with so much feedback.

The speed and efficiency of transportation by superhighway and air in many ways restricts freedom of travel. It is increasingly difficult to take a walk, except in such "reservations for wanderers" as state parks. But the nearest state park to my home has, at its entrance, a fence plastered with a long line of placards saying: NO FIRES. NO DOGS. NO HUNTING. NO CAMPING. SMOKING PROHIBITED. NO HORSE-RIDING. NO SWIMMING. NO WASHING. (I never did get that one.) PICNICS RESTRICTED TO DESIGNATED AREAS. Miles of what used to be free-and-easy beaches are now state parks which close at 6 P.M., so that one can no longer camp there for a moonlight feast. Nor can one swim outside a hundred-yard span watched by a guard, nor venture more than a few hundred feet into the water. All in the cause of "safety first" and foolproof living.

Just try taking a stroll after dark in a nice American residential area. If you can penetrate the wire fences along the highways, and then wander along a pleasant lane, you may well be challenged from a police car: "Where are you going?" Aimless strolling is suspicious and irrational. You are probably a vagrant or burglar. You are not even walking the dog! "How much money are you carrying?" Surely, you could have afforded to take the bus and if you have little or no cash, you are dearly a bum and a nuisance. Any competent housebreaker would approach his quarry in a Cadillac.

Orderly travel now means going at the maximum speed for safety from point to point, but most reachable points are increasingly cluttered with people and parked cars, and so less worth going to see, and for similar reasons it is ever more inconvenient to do business in the centers of our great cities. Real travel requires a maximum of unscheduled wandering, for there is no other way of discovering surprises and marvels, which, as I see it, is the only good reason for not staying at home. As already suggested, fast intercommunication between points is making all points the same point. Waikiki Beach is just a mongrelized version of Atlantic City, Brighton, and Miami.

Despite the fact that more accidents happen in the home than elsewhere, increasing efficiency of communication and of controlling human behavior can, instead of liberating us into the air like birds, fix us to the ground like toadstools. All information will come in by super-realistic television and other electronic devices as yet in the planning stage or barely imagined. In one way this will enable the individual to extend himself anywhere without moving his body--even to distant regions of space. But this will be a new kind of individual--an individual with a colossal external nervous system reaching out and out into infinity. And this electronic nervous system will be so interconnected that all individuals plugged in will tend to share the same thoughts, the same feelings, and the same experiences. There may be specialized types, just as there are specialized cells and organs in our bodies. For the tendency will be for all individuals to coalesce into a single bioelectronic body.

Consider the astonishing means now being made for snooping, the devices already used in offices, factories, stores, and on various lines of communication such as the mail and the telephone. Through the transistor and miniaturization techniques, these devices become ever more invisible and ever more sensitive to faint electrical impulses. The trend of all this is towards the end of individual privacy, to an extent where it may even be impossible to conceal one's thoughts. At the end of the line, no one is left with a mind of his own: there is just a vast and complex community-mind, endowed, perhaps, with such fantastic powers of control and prediction that it will already know its own future for years and years to come.

Yet the more surely and vividly you know the future, the more it makes sense to say that you've already had it. When the outcome of a game is certain, we call it quits and begin another. This is why many people object to having their fortunes told: not that fortunetelling is mere superstition or that the predictions would be horrible, but simply that the more surely the future is known, the less surprise and the less fun in living it.

Let us indulge in one more fantasy along the same lines. Technology must attempt to keep a balance between human population and consumable resources. This will require, on the one hand, judicious birth-control, and on the other, the development of many new types of food from earth, ocean, and air, doubtless including the reconversion of excrement into nutritious substances. Yet in any system of this kind there is a gradual loss of energy. As resources dwindle, population must dwindle in proportion. If, by this time, the race feels itself to be a single mind-body, this superindividual will see itself getting smaller and smaller until the last mouth eats the last morsel. Yet it may also be that, long before that, people will be highly durable plastic replicas of people with no further need to eat. But won't this be the same thing as the death of the race, with nothing but empty plastic echoes of ourselves reverberating on through time?

To most of us living today, all these fantasies of the future seem most objectionable: the loss of privacy and freedom, the restriction of travel, and the progressive conversion of flesh and blood, wood and stone, fruit and fish, sight and sound, into plastic, synthetic, and electronic reproductions. Increasingly, the artist and musician puts

himself out of business through making ever more faithful and inexpensive reproductions of his original works. Is reproduction in this sense to replace biological reproduction, through cellular fission or sexual union? In short, is the next step in evolution to be the transformation of man into nothing more than electronic patterns?

All these eventualities may seem so remote as to be unworthy of concern. Yet in so many ways they are already with us, and, as we have seen, the speed of technical and social change accelerates more than we like to admit. The popularity of science-fiction attests to a very widespread fascination with such questions, and so much science-fiction is in fact a commentary on the present, since one of the best ways of understanding what goes on today is to extend it into tomorrow. What is the difference between what is happening, on the one hand, and the direction of its motion, on the other? If I am flying from London to New York, I am moving westwards even before leaving the British coast.

The science-fiction in which we have just been indulging has, then, two important morals. The first is that if the game of order-versus-chance is to continue as a game, order must not win. As prediction and control increase, so, in proportion, the game ceases to be worth the candle. We look for a new game with an uncertain result. In other words, we have to hide again, perhaps in a new way, and then seek in new ways, since the two together make up the dance and the wonder of existence. Contrariwise, chance must not win, and probably cannot, because the order/chance polarity appears to be of the same kind as the on/off and up/down. Some astronomers believe that our universe began with an explosion that hurled all the galaxies into space, where, through negative entropy, it will dissolve forever into featureless radiation. I cannot think this way. It is, I suppose, my basic metaphysical axiom, my "leap of faith," that what happened once can always happen again. Not so much that there must be time before the first explosion and time after the final dissolution, but that time (like space) curves back on itself.

This assumption is strengthened by the second moral of these fantasies, which is the more startling. Here applies the French proverb *plus ça change, plus c'est la même chose*--the more it changes, the more it's the same thing. Change is in some sense an illusion, for we are always at the point where any future can take us! If the human race develops an electronic nervous system, outside the bodies of individual people, thus giving us all one mind and one global body, this is almost precisely what has happened in the organization of cells which compose our own bodies. We have already done it.

Furthermore, our bodily cells, and their smallest components, appear and disappear much as light waves vibrate and as people go from birth to death. A human body is like a whirlpool; there seems to be a constant form, called the whirlpool, but it functions for the very reason that no water stays in it. The very molecules and atoms of the water are also "whirlpools"--patterns of motion containing no constant and irreducible "stuff." Every person is the form taken by a stream--a marvelous torrent of milk, water, bread, beefsteak, fruit, vegetables, air, light, radiation--all of which are streams in their own turn. So with our institutions. There is a "constant" called the University of California in which nothing stays put: students, faculty, administrators, and even buildings come and go, leaving the university itself only as a continuing process, a pattern of behavior.

As to powers of prediction and control, the individual organism has already accomplished these in a measure which must have astounded the neurons when they first learned the trick. And if we reproduce ourselves in terms of mechanical, plastic, and electronic patterns, this is not really new. Any evolving species must look with misgivings on those of its members who first show signs of change, and will surely regard them as dangerous or crazy. Moreover, this new and unexpected type of reproduction is surely no more weird than many of the great variety of methods already found in the biological world--the startling transformation of caterpillar into butterfly, or the arrangement between bees and flowers, or the unpleasant but marvelously complex system of the anopheles mosquito.

If all this ends with the human race leaving no more trace of itself in the universe than a system of electronic patterns, why should that trouble us? For that is exactly what we are now! Flesh or plastic, intelligence or mechanism, nerve or wire, biology or physics--it all seems to come down to this fabulous electronic dance, which, at the macroscopic level, presents itself to itself as the whole gamut of forms and "substances."

But the underlying problem of cybernetics, which makes it an endless success/failure, is to control the process of control itself. Power is not necessarily wisdom. I may have virtual omnipotence in the government of my body and my physical environment, but how am I to control myself so as to avoid folly and error in its use? Geneticists and neurologists may come to the point of being able to produce any type of human character to order, but how will they be able to know what types of character will be needed? The situation of a pioneer culture calls for tough and aggressive individualists, whereas urban-industrial culture requires sociable and cooperative team-workers. As social change increases in speed, how are geneticists to foresee the adaptations of taste, temperament, and motivation that will be necessary twenty or thirty years ahead? Furthermore, every act of interference with the course of nature changes it in unpredictable ways. A human organism which has absorbed antibiotics is not quite the same kind of organism that it was before, because the behavior of its micro-organisms has been significantly altered. The more one interferes, the more one must analyze an evergrowing volume of detailed information about the results of interference on a world whose infinite details are inextricably interwoven. Already this information, even in the most highly specialized sciences, is so vast that no individual has time to read it--let alone absorb it.

In solving problems, technology creates new problems, and we seem, as in *Through the Looking-Glass* to have to keep running faster and faster to stay where we are. The question is then whether technical progress actually "gets anywhere" in the sense of increasing the delight and happiness of life. There is certainly a sense of exhilaration of relief at the moment of change--at the first few uses of telephone, radio, television, jet aircraft, miracle drug, or calculating machine. But all too soon these new contrivances are taken for granted, and we find ourselves oppressed

with the new predicaments which they bring with them. A successful college president once complained to me, "I'm so busy that I'm going to have to get a helicopter!" "Well," I answered, "You'll be ahead so long as you're the only president who has one. But don't get it. Everyone will expect more out of you."

Technical progress is certainly impressive from the short-run standpoint of the individual. Speaking as an old man in the 1960's, Sir Cedric Hardwicke said that his only regret was that he could not have lived in the Victorian Age--with penicillin. I am still grateful that I do not have to submit to the doctoring and dentistry of my childhood, yet I realize that advances in one field are interlocked with advances in all others. I could not have penicillin or modern anesthesia without aviation, electronics, mass communication, superhighways, and industrial agriculture--not to mention the atomic bomb and biological warfare.

Taking, therefore, a longer and wider view of things, the entire project of "conquering nature" appears more and more of a mirage--an increase in the pace of living without fundamental change of position, just as the Red Queen suggested. But technical progress becomes a way of stalling faster and faster because of the basic illusion that man and nature, the organism and the environment, the controller and the controlled are quite different things. We might "conquer" nature if we could first, or at the same time, conquer our own nature, though we do not see that human nature and "outside" nature are all of a piece. In the same way, we do not see that "I" as the knower and controller am the same fellow as "myself" as something to be known and controlled. The self-conscious feedback mechanism of the cortex allows us the hallucination that we are two souls in one body--a rational soul and an animal soul, a rider and a horse, a good guy with better instincts and finer feelings and a rascal with rapacious lusts and unruly passions. Hence the marvelously involved hypocrisies of guilt and penitence, and the frightful cruelties of punishment, warfare, and even self-torment in the name of taking the side of the good soul against the evil. The more it sides with itself, the more the good soul reveals its inseparable shadow, and the more it disowns its shadow, the more it becomes it.

Thus for thousands of years human history has been a magnificently futile conflict, a wonderfully staged panorama of triumphs and tragedies based on the resolute taboo against admitting that black goes with white. Nothing, perhaps, ever got nowhere with so much fascinating ado. As when Tweedledum and Tweedledee agreed to have a battle, the essential trick of the Game of Black-and-White is a most tacit conspiracy for the partners to conceal their unity, and to look as different as possible. It is like a stage fight so well acted that the audience is ready to believe it a real fight. Hidden behind their explicit differences is the implicit unity of what Vedanta calls the Self, the One-without-a-second, the what there is and the all that there is which conceals itself in the form of you.

If, then there is this basic unity between self and other, individual and universe, how have our minds become so narrow that we don't know it?