

MODERNISING MAN

Modernising Man

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*Burn from my brain and from my breast
Sloth, and the cowardice that clings,
And stiffness and the soul's arrest;
And feed my brain with better things.*

G. K. CHESTERTON

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Introduction

I AM A CANADIAN by birth, British by blood, a medical doctor by training, a revolutionary by choice. My wife is Dutch and we have two young daughters.

After working for a degree in zoology and chemistry at the the University of British Columbia, I took the MD degree at the University of Alberta. Then for four years I was on the medical staff of the Henry Ford Hospital in Detroit. During this period I had the privilege of additional study at Wayne University in Detroit and at the University of Michigan. Since then I have worked on every continent. I reside in London, England.

My father was a Highland Scot who emigrated to Western Canada before World War I. He was a man of faith. He lived what he talked about. My mother came from Yorkshire. She believed with fullest confidence in the infallible inspiration of the Old and New Testaments—and in caring for her neighbours. During the influenza plague of 1918, when her five-year-old daughter died of pneumonia, she nursed families in the village where every member of the household was stricken down. For two weeks she did not take time even to change her clothes.

My father could not harmonise for me the apparent contradiction between his creed and my science. My professors could not accept my mother's Bible as part of their mental furniture. Claims made in the name of science by the intellectuals with

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their permissiveness, cynicism and worship of the intellect, won the battle for my mind.

There was a wholesome harmony in our family life—a spirit of selflessness, neighbourliness, service, a joy in living and a fearlessness about dying far removed from and far more attractive than the ambitious rivalries, the heartlessness, the fears, the dirt and the drink which marked the society in which I lived. My parents' beliefs and commitment were considered out-dated, yet they cared for the people across the street and across the world. My colleagues and I were so modern we held few beliefs and avoided all commitment; we cared mostly for ourselves.

Now I think of my children, and millions like them, in this bewildering age. Is it possible any more to make rhyme and reason of life? Must we flee from today's speed and confusion and retire like recluses into the small cubicles of our own interest, doing the best we can for ourselves? Or is it possible for us to strengthen our minds, hearts and backs sufficiently to face the real world frontally without fear and to live in such a way as to advance the cause of man on earth?

My daughter once received a puppet doll for Christmas. Within a few minutes of unsupervised play the strings attached to the doll's head, arms, hands, legs and feet were in a tangle which neither of us have since been able to unravel. The puppet was immobilized. It seems to me most of us and our nations are like that puppet. Millions feel bewildered and helpless. Some, thinking they are deprived of purpose and participation, protest or drop out. Our minds and hearts are pulled this way and that by a mixture of contradictory forces.

Scientists promise us a full life and a longer one, and at the same time have produced machines which can wipe out the entire human family any afternoon between lunchtime and

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tea. Governments thrust rockets towards the moon at colossal expense, yet millions still live in slums on earth.

We live with strange paradoxes of power—we see midget Cuba challenging mighty America for supremacy in Latin America; we see Americans fighting in the jungles for freedom in Vietnam and other Americans fighting in the streets for equality of opportunity in Detroit; we can penetrate the sound barrier, yet travel into many countries is increasingly restricted by ideological and racial barriers. More of us receive more education than ever before and should be better qualified to govern ourselves. Yet we accept the extension of government controls and dictatorship on every continent. We deplore the rapid increase in population and the burden on the community of unwanted children and venereal disease, yet promote sexual indulgence for all. We acclaim pills for fertility and anti-fertility with equal triumph and hope. While we need heightened mental and psychological balance to control our precision machines and powerful techniques, some protest that any restrictions on the use of marijuana, LSD, tranquilizers and pep pills is a curtailment of liberty.

Millions of people overeat and cut short their lives by choking their arteries with fat. Other millions, because they have not enough food to fill their stomachs, have to live on their own tissues till there is no fuel left to keep the fires of life burning. While increasing numbers in our universities and cities escape from life by suicide, others seek to escape from death by having themselves quick-frozen, like dinosaurs caught in an iceberg, in the hope that they will be warmed up when the cure for their ailment has been discovered. We question ever more boldly the value of marriage and the home and find ourselves perforce becoming more dependent upon the psychiatrist and the mental hospital. We know for a fact that

more and more people require mental care because they lacked a home life made secure by love, discipline and responsibility.

While we yearn for certainty on how to live, we see all the religious doctrines and moral imperatives challenged and dismissed. We see God dethroned, not only by cynics, but by churchmen. Some believe science is all truth, and faith is all superstition. They conclude that science must therefore provide the aims and pathways for a stumbling humanity. This book takes strong exception to this widely held opinion.

I am not too concerned about the ideas, conclusions and categorical statements of scientists on how life should be lived—on what is true and what is false—for one fact of scientific experience is that new knowledge has a habit of exploding present theories, and what we do not yet know of life and the universe is far greater than what we know. I am more inclined to base my life on truths which can be proven in experience. When we seek guide-lines on how we are meant to live, what our aims, standards and guidance should be, experience is the only sure test between the gold of truth and the glitter of theory.

Modernising Our Seeing

MEN'S HEARTS hunger for heaven. As far as we can judge animals do not share this hunger. The cow seems quite content with grass, the monkey with bananas, the dolphin with the sea and the lion with the jungle. But man is unsatisfied with yesterday's world, restless with today's and plans for tomorrow's.

The glittering prizes won and promised by our genius and skill keep us hopeful that one day our hearts will be satisfied and that the needs of the human family will be met.

What we know we can do, given money and time, is breathtaking. We plan to replace ailing hearts and kidneys with new ones made of plastic. We may well develop bio-chemicals which, when injected into a man who has lost an arm or leg, will enable him to grow a new limb. We foresee the possibility of slowing down the ageing process with chemicals and extending life by another fifty years. We may develop instant education, like instant coffee, by directly transposing information from a tape recorder into the cells of the human brain. It is not impossible that we shall be able to pre-determine the sex, the physical characteristics and the intelligence level of our progeny by manipulating the genes in the egg cell from which they develop.

Already we can enable a patient to control his own moods by drugs and by electrodes pushed into his brain substance. We shall be able to destroy the will to resist in whole populations

or give them a job of happiness by simply adding a few drops of a chemical to the water supply.

A permanent military base on the moon is predicted soon. The control of gravity and of the weather are distinct possibilities.

These are some of the things we believe we can do and promise to do. But what we cannot do is even more relevant to our life on earth.

With all our brains and machines we do not see how we can prevent war.

We do not see a way of achieving a fair share of the abundance of energy, food, raw materials and productive capacity which is now available for the poor of the earth.

We do not know how to solve the unemployment and the social dislocation which accompanies automation.

We do not see how we can control and regulate the power we now possess to attack individuals and whole populations on a psychological and genetic level.

These problems defy solution by the human brain. The brain without a further development is incapable of satisfying our hunger for heaven. In fact the brain unaided cannot prevent us from ultimately destroying ourselves. Those whose faith in the human brain is unlimited, look forward to the day when the whole of life, creation and death will come within man's understanding and control. But it is an ambition based on ignorance. There are boundaries to the brain imposed by its own structure and mechanism. There is a limit to how much we can understand. It is probable that an explaining agent can only explain objects which have a structure and mechanism less complex than its own. Therefore the human brain may never be able to fully explain the human brain. Furthermore, the brain by virtue of its anatomy, physiology and chemistry

cannot be truly objective in its perception and reasoning.

To use the brain, man must first perceive with eye, ear and skin—his sense organs. He then cogitates on the thing perceived. Then he comes to a conclusion about its nature and therefore what to do about it. An examination of how we perceive gives an idea of both the complexity and limitations of our cerebral processes.

Science is built on observation. Yet how accurate are our observations? No two people will report a motor accident they have both witnessed in the same way. And think of the flurry over flying saucers. The scientist has to check and double check his own and reported observations in order to try to arrive at the truth. The reason for the unreliability of human observation lies in the mechanism of sight itself.

“Oh women are wonderfully wise, at the back of their heads they have eyes,” runs the song. But it is not just the women. You do not see with your eyes, you see with your brain. At the back of the head, on the surface of the brain, there is a small area of brain cells where your seeing is done. When this area is damaged by a severe blow, or destroyed by a tumour, or is cut away in animal experiments, sight is lost, even though the eyes themselves are in perfect working order.

The actual sequence of events in the act of seeing is in simplified form like this: when the light rays reflected from an object, say a woman's hat, enter your eye through the pupil, they stimulate a special type of nerve cell which is sensitive to light. These cells are at the back of the eye opposite the pupil. The light from the hat activates these photosensitive cells. These cells transmit their information by a coded pattern of electrochemical signals along a conducting cable called the optic nerve. This nerve when it reaches the interior of the brain splits up to carry messages, created by the size, colour and

texture of the hat, to various relay and co-ordinating centres deep within the brain substance. These relay and co-ordinating centres in their turn send information along nerve fibres to the seeing area on the brain's surface at the back of the head. Here the coded information transmitted by electro-chemical molecular changes, is uncoded in terms of light and we *see*.

Literally millions of brain cells process the information transmitted along the optic nerve. From your stored memory of experience with previous hats, you compare the new signals with old. Memories which are more than size, shape, colour and texture of hats come into play. Some have an emotional content as well. Previous hats of similar quality you may have liked or disliked for a variety of reasons. Then only do you *see* the hat and say, "My, what a heavenly hat!" or "What a horrible creation!"

This fantastic co-ordination and complication of nerve cell activity in the brain is necessary to change the incoming signal from the eye into perception; and when you add to this the other things that go into seeing involving comparison, value, judgement, remembered experiences and aesthetic evaluations, the sheer complexity of our cerebral activity boggles the imagination.

A computer, with all the things which it can be made to do by reason of its 100,000 or so components, is a clumsy wire-spring mattress compared with the brain with its ten billion components. Some of these components may each have connections with at least five thousand other units within the nervous system.

The brain is such a complex of nerve cells and their wiring systems that, despite a great increase in neurological research, we have only slightly understood its structure and can but dimly deduce how it works.

For example, a television screen presents the eye with more than one million "bits"¹ of information per second, but the brain can process no more than one hundred "bits" of information per second. Yet, the picture constructed by the brain is meaningful. This achievement is made possible by the efficiency with which the brain cells can extract patterns which make sense from a confusing flood of raw data.

Seeing is not just a matter of electro-chemical signals clicking away in the brain and coming up with a picture mechanically. In the act of seeing we put our experiences, our feelings, our hopes and aims, our whole personality, into an organised, creative response to the environment. A husband and wife looking at the same hat in a shop window see it differently. The woman sees the style and wonders how she will look in it. The husband sees the price tag and wonders how he is going to pay for it.

We have the capacity to discriminate, to choose, to reject, ignore, transform and reconstruct the materials engaged in the experience of seeing. Our seeing is then a choice which the perceiver makes. Perception depends on the personal orientation of the perceiver—what he is trying to do or become. "There is no attention without intention."²

Another complication is that the brain grows with use. Animals kept in solitary confinement during the early stage of development have a brain lighter by weight and with a less effective intelligence than animals provided with a stimulating environment during that period. The difference in weight is in the seat of learning—the cortex. These experiments suggest

1 "Bits": abbreviation for Binary Units—a way of measuring the information content of a signal.

2 Quoted by F. W. Matson, *The Broken Image*, George Braziller, New York (1964), p. 186.

that the environment of childhood may have a critical bearing on the development of effective intelligence in later life. It is poor science to translate conclusions reached from experiments made on a cat's brain to the human brain. But in this instance it may be unwise to ignore the implications. They suggest that intelligence is not a matter of chance but can be cultivated. Therefore no two human brains can ever be exactly alike in function.

We can never be wholly objective. Every experience depends for its interpretation upon the information processing capacity of our cerebral circuitry. Even the most exact scientific observation is in this sense subjective. It has a very large human component because everything we observe has to be perceived by a human cerebral process. L. de Broglie, Professor of Theoretical Physics at Paris University and Nobel Prizewinner, concludes, "Science thus loses a part of its objective character; no more is it the passive contemplation of a fixed universe; it becomes a hand-to-hand struggle where the scientist succeeds in snatching from the physical world, which he would like to understand, certain information, always partial, which would allow him to make predictions that are incomplete and in general only probable."¹

That is why highly trained scientists can differ so widely on the interpretation and the evaluation of their observations and experiments.

Also, of course, what the brain sees depends on the perspective at which the light rays come to the eye. A teaspoonful of sugar which we put in our coffee creates a radically different image when seen under a microscope. A man who has used sugar all his life but never a microscope, when presented with a microscopic picture of sugar granules, would not know what

1 *Physics and Microphysics*, by L. de Broglie, Harper (1960), p. 131.

in the world they were and certainly would not think of putting them in his coffee. An ant sitting on a golf ball, if it had a comparable brain, would have quite a different evaluation of the ball's size than the irate golfer searching for it in the rough. And what would be a mere 150 yard slice to the golfer, would be like a moonshot to the ant.

Then the evaluation of the speed of an event is determined by how long the observer normally lives. A donkey and a man must see the passing of a day and a night in much the same perspective, as both have the same life-span—three score years and ten. But a being whose life-span is three days will consider one day to be one-third of its life-span, the equivalent of twenty-five years to a human. Contrariwise, if a being lives ten million years, then a thousand years would be as a day and a day as a thousand years. What would seem to be a very long process to man would seem instantaneous to our long-liver.

We have no choice but to perceive the universe in the perspective provided by our sense organs and by the scientific instruments created by the brain. We have to know the perspective in order to understand what we see. How close this human perspective is to reality is a matter of conjecture.

This simply means that the nature of the observer is inevitably engaged in the nature of the thing observed. As Eddington¹ is reported to have put it, "We have found that where science has progressed the farthest, the mind has but regained from nature that which the mind has put into nature. We have found a strange footprint on the shores of the unknown. We have devised profound theories one after another to account for its origin. At last we have succeeded in reconstructing the

1 Sir Arthur Eddington, OM, Plumian Professor of Astronomy, Cambridge University, 1913-1944.

creature that made the footprint. And lo! it is our own.”¹

For example, “Nature, it appears, knows nothing of the distinction we make between space and time. The distinction we make is ultimately a psychological peculiarity of ours.”²

So, when someone says, “This is a scientific fact” or “I saw this with my own eyes”, don’t swallow it whole without that grain of salt with which all human observation deserves to be seasoned.

The brain is a marvel, but it is not almighty. It has its limitations determined by the nature of man, his size, his life-span, his sense organs, his experience and training and by the neuro-chemical architecture of his brain.

To rely on brain power alone to deal successfully with man and his problems is as fanciful as expecting a man to get himself into orbit by taking a running jump at the moon.

A high degree of intelligence does not guarantee highly intelligent action. Some men with intellects of proven excellence, chain smoke cigarettes in face of the evidence that thereby their chance of developing lung cancer is increased by 800 per cent and that damage to the heart, arteries and nervous system is highly probable. A group with the highest IQs in Britain met the other day. It was a brief encounter. With all their intelligence they could not muster enough sense to agree on an agenda for the meeting.

The brain is not an instrument like an electronic black box which functions independently of the character, aims and feelings of the operator. The brain is just as selfless, reliable, trustworthy, as worthy of worship as we are, and not one whit more. Our intellects are the prisoners of our goals, our appetites,

¹ Quoted by Werner Heisenberg, *The Physicist's Conception of Nature*, Harcourt (1958), p. 153.

² *The Limitations of Science*, by J. W. N. Sullivan, Mentor (1949), p. 81.

prejudices, fears and lusts. Although we can often think out solutions to the problems which threaten to overwhelm us, our brains cannot cure the self-interest and inertia which prevent the answers being applied. Those who worship the brain have a weak god. Those who rely for policy on brain power alone have an untrustworthy guide.

Some think we may bring our heaven nearer by controlling the selfishness of man, his hates and lusts and fears with drugs, or by the mass implantation of electrodes in human skulls. It is pure fantasy. Those who administer the drugs and control the electrodes have the same failings as the treated population. They will themselves continue to make the same errors of judgement and aim based on prejudice—or even on indigestion—which plague us now. Such control of the population will be no more salutary than the control by a Hitler or a Stalin.

Our thinking has to be checked against reality or our mental processes can lead us very much astray. Indeed the best brains of the day at one time believed the world to be flat.

To say "There is no God" is intellectually an untenable position. It is like our ancestors looking no farther than the horizon and concluding that the sun moves round the earth. The idea "no God" cannot be tested in reality. Something that is not there obviously cannot be tested in experience or by experiment. Belief that there is no God is an opinion or a prejudice usually based on an emotion or on the determination to be free of all moral authority. It is a purely subjective opinion.

"God is" on the other hand can be tested in experience and by experiment and needs to be. How this testing is done I discuss later in the book. Much harm has been done, much self-righteousness, hate and suffering generated by those for whom "God is" is an emotion, an opinion, a traditional belief untested in experience. For if "God is", He is more than

a mental construct of man. He is the power for change, direction, for moral growth, for the evolution of the human race.

The intellect alone, however heightened and sharpened, cannot forge the answers to our confusion, to our colour, class and race hates, to our ideological divisions, to our personal and national self-interests, to our lack of care for one another.

The realization of this fact has led to a certain pessimism about the future of the human race. Professor Sir Macfarlane Burnet, Nobel Prize winner in Medicine and President of the Australian Academy of Science, expressed it this way to a meeting of biologists in Melbourne. "Humanity has passed the stage when intellectuals can dream of creating a sane and peaceful world. All the world can hope for is a possibility of coping with each difficulty and catastrophe as it arises."

The answer to our dilemma requires that we add to our brain power a new power. Our intellects need to be free from their age-old servitude to our prejudices and passions. The attainment of this freedom is the next step in the long history of man's evolution.

Modernising Our Thinking

THE KNOWLEDGE of the history of life, which we have picked and scraped from the earth, has produced some evidence of a development from the simple organisms of primordial mud to the complex organism known as man. The study of fossils reveals a multitude of experimental forms, most of which have become extinct. We can examine their skeletal remains and imagine the world in which they munched and crunched and propagated. Amid all the varied forms of animal life there has come one line of development which has culminated in man. And the pinnacle of that evolution is the human brain.

The evolutionary process has not stopped with that achievement. A further phase of advance is emerging through the brain.

I do not mean that man is getting more intelligent. The same degree of intelligence was needed by our ancestor who invented the wheel as is needed to conceive and build a computer. Each generation stands on the shoulders of the past. Nor do I mean that man will inevitably evolve morally. There is nothing in our past to suggest that by the passage of time man develops in honesty, unselfishness, in love and purity, in responsibility. But with the appearance of the human brain there did come a gigantic leap forward, a new dimension in the course of evolution.

The nerve cells in a frog's or in an elephant's nervous system are of the same structural material, chemical composition and physiological properties as in man's. When an elephant gets hungry it eats. When a tom cat goes out at night it is obeying its neuro-chemical make-up. The urges which result in the preservation and propagation of life are instincts created by an interplay between the brain cells of the nervous system and certain chemicals produced by various glands in the body called endocrine glands.

The animal is a prisoner of this neuro-endocrine structure which is in touch with the environment through the medium of the sense organs. Thus inherited animal appetites and instincts can be modified by changes in the environment. For example, when undesirable behaviour is punished and desirable behaviour is rewarded often enough, the animal is *trained* or conditioned. The animal does not choose to obey the urges derived from the activity of glands and nerves and environment. It cannot disobey them. The molecular and cellular architecture of its organs determines the animal's nature. It is what makes animals animals.

Man, in the structure of his nerves, glands, muscles and bones, is animal. But the development of the human brain introduced a most remarkable factor. The brain entertains ideas of love and loyalty, of patriotism, of self-sacrifice, of honour and purity, of laying one's life down for one's friends. These impulses, giving people unselfish purposes, creative ideas, and the quality of being responsible are a break-away from the type of impulses derived from our physical make-up.

The brain enables man to ask of the action which his glands and nervous system suggest, "Is it good or bad?" "How does it affect others?" And with the insight to ask the question,

man gained the freedom to answer it. He began to evaluate his demands and motives, to make judgements upon them, and then to make a choice. The brain gives him freedom to disobey the commands of his animal heredity and to choose to be honest, unselfish, courageous and self-sacrificing.

If there is no difference in the chemical and anatomical and molecular structure between the brain of a chimpanzee and the brain of a man, where do these ideas, these ideals, this moral sense of right and wrong, this consciousness of responsibility come from? Is it just because there are more molecules in the human head than behind the snout of the ape or because there is a more complex circuitry in the head of a man than in the head of a dolphin?

We probe the brain, the cell, the molecule and discover more and more about their structure and behaviour. But the force that orders the amazing genius of their structure and behaviour still eludes us.

Professor Max Born, FRS, the noted physicist who won a Nobel Prize in 1954, writes, "We are convinced the physical-chemical aspect is not in the least sufficient to represent the facts of life, to say nothing of the facts of mind."¹

The materialists say that the evolution of man and the development of his brain all happened by chance. It is the same theory which says that enough monkeys pounding typewriters would one day, given enough time and paper, come up with a Shakespearean play.

When we toss a coin, no matter how many times, we have observed that the chances are equal that it will come down heads or tails. The basic laws of science have been derived from

1 *Physics in My Generation*, by Max Born, Pergamon Press (1956), p. 52.

a multitude of such observations to which we apply the mathematics of probability.

But the development of life breaks the laws of chance. In a sense the coin always comes down heads. For life has evolved in one direction only. That direction is towards greater and greater freedom.

As Paul Weiss, Professor of Biomedical Studies at Texas University, explains: "Evolution does not apply merely to parts of beings or to their bodies. It embraces the living being as a whole—its sensitivity, its concern and its end. It is the product of freedom. Freedom is the power behind evolution—responsible for whatever mutations occur and for the fact that higher beings have non-bodily power such as sensitivity and purposiveness."¹

Man walks on two limbs, which frees two limbs to work with. He has developed language and the freedom to communicate. He has the freedom to invent and to pass on his knowledge from generation to generation. He has the freedom to deny his neural endocrine commands and live the highest ideals of self-sacrifice and discipline. He has found the freedom to take responsibility not only for his own preservation but for the state of society. He has the freedom voluntarily to give his life, if necessary, for a belief, a cause or a country.

Now this development in one direction rules out chance as the first cause. Chance has no memory and no heredity. The chance of rolling double sixes is no greater and no less after a million throws than after the first one.

In terms of creating a Shakespearean play, so many monkeys would be needed to make the probability possible, that there would not be enough room on earth for them or their typewriters. Eddington comments:

1 *Nature and Man*, by Paul Weiss, Holt (1947), p. 102.

MODERNISING OUR THINKING

There once was a brainy baboon
Who always breathed down a bassoon
For he said, "It appears
That in billions of years
I shall certainly hit on a tune!"¹

The late Quain Professor of Physics at London University, E. N. Andrade, asserts: "The latest lesson of the laboratory and study appears to be that, while we can go very, very far in our study of the material world, there are mysteries that our methods can, by their very nature, never touch. . . . Materialism, dialectical or otherwise, is a form of faith founded on predilection and belief which has an appeal for certain minds, but it certainly has no support from the findings or the founders of modern science."²

Can materialism be the sole explanation of the emergence of new and highly differentiated types? Sullivan observes: "The great theory of natural selection, for example . . . does not in the least explain the most obvious fact about the whole process, that is the upward tendency of living things."³

There must be more to evolution than response to environment. The pattern of play on a football field is not entirely determined by the size and structure of the surrounding stadium, and by the lines and grass on the field and by the spectators. The pattern of play is determined also by the skill, movement and relationships of the men playing the game. They are organized and move in a way determined by the physical limitations of the human body and by the purpose

1 *New Pathways to Science*, by Sir Arthur Eddington, Macmillan (1935), p. 62.

2 *An Approach to Modern Physics*, by E. N. de C. Andrade, Doubleday (1962), p. 251.

3 *The Limitations of Science*, by J. W. N. Sullivan, Mentor (1949), p. 199.

and rules of the game. In evolution the stadium is the environment, the football players the components of the living cell. It is the players that determine the kind of game played and not just the stadium. A complete examination of every player, even a mathematical formula which expresses the dynamics of the match or of all matches, does not touch the question, "Who thought up the game of football in the first place?" It took an intelligence and then trial and error to evolve the game and the rules of play.

There is yet another question in the story of evolution. The living cell, made up of large biological-molecules, nucleic acids, proteins and chromosomes, is a highly co-ordinated and ordered system. The structure and dynamics of the living cell have certain limits of variability. Changes which go beyond these limits bring damage or death to the cell. These limitations to change within the cell maintain a dynamic stability essential to normal function. There is therefore a limiting factor to the amount of change that is possible. The cell structure limits the extent of change.¹ But what causes change towards a goal? Knowledge of the chemical and genetic structure of the cell does not answer this question. The phenomenon of change in one direction, of creativity, cannot be explained solely in neuro-chemical terms. Nor does our knowledge of the molecule solve the riddle of where the energy necessary for these changes, for life itself, comes from. To say this energy comes from chemical action—changes in molecular structure which release energy in the process—does not answer the question of where the energy for the molecular change itself comes from.

Perhaps one day the forces at work in a cell which make

¹ *Internal Factors in Evolution*, by Lancelot Law Whyte, Tavistock (1965). Whyte is an English writer on the fundamentals and physics of biology.

“life” possible will be understood as laws and we will be able to express them mathematically. We will then have an understanding of the structure of all the molecular components of a biological system and a knowledge of how they interact. But why does the interaction of these chemical processes in the cell produce the quality of responsibility and freedom in the organism? And why has the process persisted towards this goal through cons of time?

Judson Herrick, Professor of Neurology at Chicago University 1907–34, maintains that “the intrinsic directiveness of many vital processes is as well established by factual evidence as anything in biology. To deny it simply because we do not understand it is a futile device”¹

And Wolff adds, “The intrusion of purpose could be avoided only by those biologists who abandon biology.”²

In the face of the facts, is it not subjective and imprecise to make brainless chance the god of creation? One conclusion we can deduce from the idea of evolution is that there is a Creator with goals and will and intelligence—and a lot of patience.

Professor Sir John Eccles, FRS, a 1963 Nobel Prize winner for his work on the physiology of the brain, has this to say of man’s development: “I come to the concept of the soul and its special creation by God. I believe that there is a fundamental mystery in my existence transcending any biological account of the development of my body (including my brain), with its genetic inheritance and evolutionary origin. And that being so, I must believe similarly for each one of you and for every human being. And just as I cannot give a scientific account of

1 *Evolution of Human Nature*, C. Judson Herrick, Texas (1956), p. 53.

2 *The Broken Image*, F. W. Matson, George Braziller, New York (1964), quotes Harold G. Wolff, Professor of Neurology at Cornell University, on page 162.

my origin—I woke up in life, as it were, to find myself existing as an embodied self with a body and brain—so I cannot believe that this wonderful, divine gift of a conscious existence has no further future, no possibility of another existence under some other unimaginable conditions. At least I would maintain that this possibility of a future existence cannot be denied on scientific grounds.”¹

The emergence of the peculiar human capacity of the brain; the liberty to choose between the good and the best and a sense of responsibility for the consequences of his choices, has placed man’s future development squarely in his own hands. “Evolution becomes subject to conscious control,” says Simpson, Harvard Professor of Vertebrate Palaeontology in his book, *The Meaning of Evolution*. “Man alone among all organisms knows that he evolves and he alone is capable of directing his own evolution. For his evolution is no longer something that happens to the organism regardless, but something in which the organism may and must take an active hand.” “It is another unique quality of man that he, for the first time in the history of life, has increasing power to choose his course and to influence his own future evolution. The possibility of choice can be shown to exist. This makes rational the hope that choice may some time lead to what is good and right for man.”² “This freedom is the badge of our humanity,” writes Herrick, “but we can only prove our right to the badge by using it like men, not beasts.”³

That man has freedom to choose is also a deduction reached

1 *The Brain and the Unity of Conscious Experience*, Sir John Eccles, Cambridge University Press (1965).

2 *The Meaning of Evolution*, George Gaylord Simpson, Mentor (1951), pp. 348 & 290.

3 From the introduction to *The Evolution of Human Nature*, C. Judson Herrick, Texas (1956).

by some scientists by an analogy with the structure of the material universe. "When we observe the individual atoms that make up the huge bodies and quantities of matter, we find on all sides free, individual decisions which are not determined by natural law," writes Pascual Jordan, Professor of Theoretical Physics at Hamburg University. "Organic life partakes then of the same freedom and spontaneity that physicists have found at the root of material being. . . . We may say that the attempt to prove man a machine, to deny him free will, has been refuted by the sheer facts of science."¹

Nor does research into the brain's mechanism prove man to be nothing more than a complex machine without freedom of choice. Dr D. M. Mackay, Professor of Communication at Keele University, writes: "To argue 'it wasn't you who chose but your brain' would be as absurd as to claim that a computer's behaviour wasn't determined by the equation it was solving but by the currents in its circuits."² Both are part of a whole truth and are not mutually exclusive.

But even though we choose—do we in fact have freedom of choice? Do we possess free will? The logic of the matter is this: mechanistic brain theory assumes that what we believe is rigorously reflected in the molecular arrangements of our brain cells. But what can we believe the state of our brain to be if that state varies with each change of belief and thought? There can be no description of the brain mechanism which is true at any given moment, if that mechanism does not exist before we think about it. If there is no change in molecular arrangement till we think—then there is no mechanical arrangement pre-determining our choices.

1 *Science and the Course of History*, Pascual Jordan, Yale (1955), p. 122.

2 *Science Journal*, Volume 3 No 5 (1967), *The Human Brain*, by D. M. Mackay.

MODERNISING MAN

The further evolution of man through his brain is not primarily in the development of a more complicated brain architecture. It is in the better use of his brain cells. Actually we have far more records of observed and experimental evidence for the psychological and moral evolution of man than we have for his structural evolution. There are stories in the history of man which dramatize various stages of this growth. These stories have survived for three thousand years not because they can be proved to be literally or mechanically true, but because they are true to man's experience. To argue about their accuracy is to miss their relevance.

Man, we are told, was created from the dust. Then God breathed into him His Spirit and man became a living soul.¹ By this intervention animal man gained the freedom to obey and to disobey his impulses. He became free to choose between good and evil. Thus is recorded the birth of man's conscience. A knowledge of the neuro-chemical structure of the brain is necessary but not sufficient to explain conscience, the freedom to choose, a awareness of self and the will to accept responsibility.

Then consider the development of the sense of social responsibility described in the story of Cain and Abel, the children of the first man with a conscience. One murdered the other. Unlike an animal, Cain was aware that in killing a man he had done evil. He had the freedom to feel the anguish of being out of joint with man and the universe. "From Thy face shall I be hid; and I shall be a fugitive and a vagabond in the earth."²

Another phase of man's moral evolution is related in the story of Noah and his ark. The story tells that in Noah's time, "The earth also was corrupt before God, and the earth was filled with violence."³ Noah could see that this course would end in disaster. He had the liberty to withstand the ridicule

1 Genesis 2, 7.

2 Genesis 4, 14.

3 Genesis 6, 11.

MODERNISING OUR THINKING

of his contemporaries and to cut across their practices and attitudes in order to warn them and to build for the future. He had developed the freedom to stand and act alone.

Abraham, we are told, was ready to sacrifice his son. We have evolved today beyond the point where we condone human sacrifice, at least in the individual instance. But that is not the point of the story. Abraham discovered that it was not the sacrifice of someone else that was required, but that he had to die to himself to be free. Abraham yielded his possessiveness of what he loved most on earth, and gave to humanity a new degree of faith. It was such a profound development that it was said of him, "In thy seed shall all the nations of the earth be blessed; because thou hast obeyed My voice."¹

Another of these stories of man's development is that of Job. He found freedom from the control of his environment; his fortunes, his sorrows, sufferings and triumphs. "Though He slay me, yet will I trust in Him," exclaims Job. And whatever the circumstances, "I will maintain mine own ways before Him."² It was a decision to stand firm in what he knew to be right, no matter how testing the pressures of circumstance or the persuasions of friends and critics. The more Job understood the wonders of the universe around him, the more humble he became.

We can still learn from the story of Babel.³ Men were doing in their own strength and their own skill the greatest thing they could conceive of. It was an attempt to reach the stars. But it was technological development only. Their fascination and faith in material achievement eliminated any equal concern for moral achievement. They were making material progress, it is true. But in the process they stepped outside the main path of evolution. They ended up with their material gains and with a

1 Genesis 2, 18.

2 Job 13, 15.

3 Genesis 11, 1-9.

splintered humanity. "If our human nature does not change with the times, Homo Sapiens will perish just as the dinosaurs did and for the same reason."¹

There are many classic examples of these moral mutations in the history of the race. There is St Paul breaking with security, St Augustine breaking with impurity, St Francis breaking with popularity, in order to live more like sons of God, and to better serve a needy humanity.

Today such evolutionary changes are commonplace. Jack Carroll, a friend of mine, is a Bristol dockworker. Two years ago he and his friends had the whole port out on strike for a month. He also led a strike against his in-laws. He was at war with his trade union officials ("We were at bayonets drawn") whom he hated as much as he did the employers. Today Jack is a constructive force in the port. He has made restitution to the officials and the employers and has developed a new pattern of teamwork with them. His spirit is contagious. Usually when a meat ship is being unloaded about 1,500 tins of meat vanish. On a recent unloading not a single tin disappeared. He believes that his port must be modernised, and has been to Holland and Belgium to examine the developments in their ports. He has taken his experience of change and teamwork to the port-workers of Bombay and Calcutta as his contribution to meeting the economic needs of the Indian people. His attitude to, and care for, his father-in-law had so developed that when the old man lay dying, it was Jack he wanted at his bedside. No one would call Jack a saint, least of all Jack himself, but he is an example, of which I know literally hundreds, of the evolutionary process at work in our age on every continent.

1 *The Evolution of Human Nature*, C. Judson Herrick, Texas (1956), p. 2.

Modernising Our Living

IF THE EVOLUTIONARY PROCESS is still at work, why is mankind not more evolved? Here is the rub. The fact is that although we are born with the freedom to choose the evolutionary path, we are not born with the power to live unselfishly.

This power is not generated by the challenge of the environment. Communism has at least demonstrated that truth. Contrary to Marxist theory and hope, the experience of the Communist countries is that a controlled economic and cultural environment does not make the selfish nature of man unselfish, does not make man less self-centred, does not banish hate and bitterness, does not reduce delinquency and drunkenness. Said Khrushchev while still chief man of Communist Russia, "The state will wither away only when we learn to live unselfishly without compulsion. I must admit we have not achieved that revolutionary aim yet."

The introduction of the five-day week in Russia, according to *Trud*, has not resulted in more self-improvement, more family life, and cultured involvement—but in two days of drinking a week instead of one.

Even human need and poverty fail to make us unselfish. The Asians, Africans and Latin Americans have vast needs for food, homes, schools and sanitation. Their average income is under £100 per person per year. North America, Europe, Australia, Russia have the know-how, technological wealth and a production plant of limitless potential. Yet we have not risen to the

challenge. We do not care enough to share enough so everyone has enough. Less than one per cent of the national budgets of the rich nations goes to aid the poor. In Britain we spend more on entertainment than on foreign aid. The more weighted we are with creature comforts, the more quickly we settle down by the stern and blot out the less fortunate from our active concern. Affluence is today's opiate of the people. A man may agitate vigorously and violently for better housing—until he gets a home of his own. Then quite likely he may never be heard from again.

Man is not being changed by his environment. There is a rapidly increasing number of people on the planet and a seemingly limited possibility of feeding them. Environment calls for more protein and less progeny. Our response to the rise in birth rate is to aim not at moral growth but at technique. We not only deride purity before marriage and responsible restraint within marriage, we propagate and practice permissiveness. An Indian untouchable leader whom I know has decided to live purity for the sake of his nation. He maintains that the uneducated of Asia will understand purity in the home long before they will understand the pill and the loop.

Another fact of today's world is the growth and spread of nuclear power. We know we cannot survive if we proliferate both hydrogen bombs and bitterness. But how do we respond? We feverishly seek to control the bombs but have no plan for curing the hate which is being actively fomented between nations and races. Obviously it will take more than environment to create the new man.

Perhaps the key feature of a needed evolution is that, unlike physical evolution, development in character is not inherited. Moral growth is not transmitted automatically from one

generation to the next. It is commonplace to put a code on a tape which, fed into a machine, produces articles of a size and shape determined by the code. Likewise, there is a coded tape in the cell from which each of us has developed, which determines the shape of the nose, the type of the blood, the colour of the eyes, called the genetic code.

But the power to break with our instinctive action is not coded. No manipulation of the genes can make us unselfish. A new step in evolution is achieved only when we exercise our freedom to choose. To choose to be unselfish when our genetic code says, "Be selfish". To be disciplined when our animal heredity prompts indulgence. To be honest when our instinct for self-preservation says, "Take what you want". To love our neighbours as ourselves, that is, put them first, when our whole neural endocrine system yells, "Me first, and to hell with the rest". Evolution is no longer imposed upon us by the environment. We are free to evolve or not. Man's next development is based on aims, standards and faith which have to be chosen by the people of each generation. Evolution is no longer inevitable. It is a personal response to the challenge facing man. Lincoln by his choices, advanced the moral growth of the human family. Hitler, by his choices, pushed the world towards the beast.

To aid man make his choice there is the experience of parents and individuals who have themselves made the choice and who can communicate it by eye and ear and example. As men evolve morally they make a mark on the aim and character of family and society. Traditions are formed and incorporated in customs, constitutions and laws. Thus communication replaces the chromosomes as a heredity carrier of the next phase of evolution.

The home is the potential centre and generating point for

the evolutionary development of the human family. The school then plays its part. Then the organisations in which the individual lives and works. The trade unions, the political parties, the business associations, the cultural groups, when aimed at the development of man will help make life one continuous process of change and growth, and at the same time they will find their true role in a changing world.

This power to advance or retard the course of evolution by his own choices, is man's most distinctive characteristic. Says Judson Herrick, "It is perhaps the most significant fact known to science."¹ And Sir Julian Huxley concludes, "In broad terms the destiny of man on earth is made clear by evolutionary biology. It is to be the agent of the world process of evolution, the sole agent capable of leading it to new heights and enabling it to realise new possibilities."²

It is the ordinary people in their millions who by their choices determine the future of man. A Canadian teacher was recently offered two opportunities. One was a position in an American school at £200 a month. The other was to work in a school in India, for food and lodging and £5 a month. She has decided for India, for she is convinced that the character and commitment of the next generation of leadership in that country will decide whether or not freedom is to survive and spread in Asia.

Now there are forces ranged on both sides of this battle of choice. The forces for evolution are far more powerful than the forces against, if we have but the knowledge, wit and will to employ them.

One of these forces is the knowledge of what is right and what is wrong. For the animal there is no right or wrong. The

¹ *Evolution of Human Nature*, C. Judson Herrick, Texas (1956), p. 9.

² *Evolution in Action*, Julian Huxley, Mentor (1953), p. 31.

animal lives under the dictatorship of instinct. The animal does not evaluate its acts. It is without self-consciousness and the freedom of choice. The light which evolution throws on the purpose of life makes clear what is right and what is wrong. Anything which forwards freedom from the control of our hereditary nature is right. Anything which shackles us to the slavery of instinctive action is wrong.

We are still at the cave man stage of development if we sacrifice the welfare, rights and liberties of others to gain money, power, prestige and prominence; if we abuse our brain and bodies with food, drink and drugs; if we exploit the bodies of other men and women in the attempt to gratify our own physical sensations; if we lust for knowledge to the exclusion of our need for righteousness; if we hate other races, colours and classes. We may be engaged in a battle for political and economic freedoms, but when hate is our weapon we are opposing man's evolution.

Croce, the Italian historian, observes that "men who shut themselves up within the four walls of their private affections and private economic life cease to be interested in what has happened and what is happening in the great world, and they recognise no other history but that of their limited anxieties."¹

Material advance alone without a strategy for the moral evolution of man can only end in anxiety. I once heard Professor Robert Moon of Chicago, who helped develop the first nuclear chain reaction, speak to a member of the post-war Japanese Government. He apologised not for his nuclear science, but for the failure to work as intelligently to unite humanity as he had done to split the atom.

Political, economic, scientific and cultural aims by themselves have proved to be too limited to meet the reality of the

1 *History as the Story of Liberty*, Benedetto Croce, Morton (1941), p. 45.

human condition. Realistic leaders must now in addition to pursuing these aims learn to change men.

What we are, what we aim at, what we are interested in, determines what we see, how we interpret what we see and the strategy for dealing with our interpretation. "Mind or self is the first and most direct thing in our experience; all else is remote inference,"¹ wrote Eddington. Those who discount man's aims, loves, fears, greeds, sacrifices, hates, jealousies and ambitions as being subjective and therefore irrelevant to economic, social, scientific and political life, are deserting that objectivity to which they are so rightly devoted. Of all men, they are the most unreal.

Another force for evolution is moral standards. Some claim that the development of science and the changing times have rendered moral standards obsolete. But, in fact, scientific progress and changing times have no more brought the validity of absolute moral standards into question than they have the validity of the law of gravity. You do not destroy a law by violating it. You prove it. Drop an egg on the floor and something breaks; but it is not the law of gravity. Absolute moral standards make clear the choices that forge the next stage of human evolution. They are as permanent as the Law of Gravity. They are being violated and something is being destroyed, but it is not the standards. It is home life, trust between people—the will to choose the evolutionary path. Moral standards do not limit our freedom. They are the means of achieving it. They enable us to live and act like men, not beasts.

Another force for evolution is the sense of guilt. The feeling of guilt is a red light to warn us when we are on an anti-evolutionary course. Without a sense of guilt we would never

1 *Science and the Unseen World*, Sir Arthur Eddington, George Allen & Unwin (1929).

stop to evaluate our actions and motives and to change course. We would never free ourselves of our enslavement. We would simply do what comes naturally—destroy those who get in our way—take anything that strikes our fancy, like any wolf.

Those doctors, clergymen and professors who help us dull our conscience by advising us to ignore guilt are using their brains and influence to undermine our bid for liberty.

Those who advocate sexual promiscuity, pornography of book and screen and theatre, the playboy cult, the escape from reality by the use of drugs and drink, often call themselves progressive, “with it”, hippies, or pioneers of new human freedoms. (The Hamburg street notorious for pimps and whores is known as “Great Freedom Street”.) Actually, in the perspective of evolution they are like the dinosaurs in the Kensington Museum. They have dropped out of the evolutionary stream. They are neither modern, progressive, revolutionary, free, nor responsible. They are under the delusion that by strengthening the bars that imprison them in their own natures they are finding liberty.

To evolve means leaving immediate animal satisfactions for the deeper more satisfying pleasure of a different order.

To co-exist with our animal heredity and to say that because it is natural to us, therefore there is nothing wrong with it, is to remove ourselves effectively from the mainstream of evolution. And to be on the bank of the river of human development is to be at war with ourselves and our universe.

There is, however, a force for evolution even greater than the knowledge of right and wrong, absolute moral standards and a sense of guilt. Says Jung, Professor of Psychiatry at Basle University, “We moderns are faced with the necessity of rediscovering the life of the spirit. . . . It is the only way in which we can break the spell that binds us to the cycle of

biological events.”¹ He speaks of the opposition between “the fleshly bond” and the human spirit. “There is nothing that can free us from this bond except that opposite urge of life, the spirit. It is not the children of flesh, but the ‘children of God’ who know freedom.”

At the moment the “children of God” are militantly trying to make themselves the children of no god. It is said that Moscow has 50,000 full-time propagandists for atheism hard at work in the Soviet. In non-Communist society man is being deified and is urged to assert his divinity. There are two main reasons for this attempt to run God off the planet. One is that if there is no God there is no authority for moral standards. We can therefore forget our consciences and indulge our instincts as we please. Anything we can get away with politically, economically and morally becomes right. The other reason is ideological. If there is no God then man has no higher loyalty than man and the state. This is the point Lenin was making when he said, “Our revolution will not succeed till the myth of God is removed from the mind of man.” It seems reasonable that the brain can never explain objects which have a structure more complex than its own. Therefore it is human arrogance based on a limited brain power which denies a Creator. David, the Psalmist, was on safe neurological ground when he exclaimed, “The fool hath said in his heart ‘There is no God’.”

It is one thing to be aware of the forces working for our evolution. It is another to apply these forces to our daily living. With the birth of conscience, man became equipped with two impulses. One is provided by his genetic code. It is the voice of his endocrine neural mechanism. It has all the power of human nature behind it. The other voice is derived from the force of evolution within him. It speaks of good and evil,

1 *Modern Man in Search of a Soul*, C. G. Jung, Harcourt (1960), p. 140.

right and wrong, honesty, purity, unselfishness and love, honour, service and sacrifice—wrongs put right—a world rebuilt. This is the voice of evolution, of the Creator, if you like, within every human heart. It has all the power of the Creator behind it.

The first voice is automatic. The sight, smell and taste of food activates the glands which manufacture the gastric juices and set them pouring forth inside us. A chocolate sets the mouth watering. We do not choose to feel thirst or hunger. These are responses to the voice of our neuro-chemical structure. The other voice is not automatic. We have to tune in to hear this voice. A conscious act of the will is needed to obey it in the face of the selfishness of our animal nature. This is the voice which tells us what we can become. It is the voice of our future.

The voice of evolution is heard by deliberately listening for it. This is a skill that can be learned by practice. It is the historic source of man's moral development. "Cause me to hear Thy loving kindness in the mornings for in Thee do I trust: cause me to know the way wherein I should walk. Teach me to do Thy will."¹

The stages of man's moral evolution are marked by individuals who listened to this voice and were made aware of new heights to climb. "If Thou shalt honour Him, not doing thine own ways, nor finding thine own pleasure, nor speaking thine own words, then shalt thou delight thyself in the Lord and I will cause thee to ride upon the high places of the earth."² When Adam listened he was commanded not to touch the fruit of the tree of knowledge of good and evil. By being told not to take the fruit, Adam knew he had the freedom to take it. Man was given the power of moral judgment and with it the responsibility of acting upon that judgment.

1 Psalm 143, 8, 10.

2 Isaiah 58, 13.

MODERNISING MAN

Cain, being charged with the destruction of his brother, was awakened to a new consciousness of responsibility. He asked almost incredulously, "Am I my brother's keeper?" It was a call to move beyond the animal instinct of every man for himself. Noah, when he listened, knew he must begin to provide "for every living thing of all flesh." He embraced in the ark of his care and provision the whole of creation. It was man becoming conscious of, and accepting, his responsibility for more than just his own life and family.

The voice of our animal heredity urges us to go our own ways, find our own pleasures, and to speak our own words. If we do not choose to listen to the other voice then we are run by our neuro-endocrine system, or someone else's neuro-endocrine system.

The present Tunisian Ambassador to France was once forced into exile by the French. He came to Caux in Switzerland to a conference of Moral Re-Armament. He said afterwards that when he arrived his heart was as full of hate as a bomb is full of explosion. He decided to listen for direction. At that time he received a letter from his mother in Tunisia in which she asked God to bless the Tunisians and curse the French. He replied, "Certainly ask God to bless the Tunisians but not to curse the French." He had found Frenchmen with whom Tunisians like himself could find a common cause. He returned to France to negotiate with Mendes-France for the independence of his people. Then he went to the guerilla bands in his country and persuaded them to lay down their arms because he believed there were French who could be trusted. Two years later he said in a public meeting in Washington that had it not been for this change in himself and certain Frenchmen, "Tunisia would have been engaged in a war without mercy with France."

MODERNISING OUR LIVING

There is a far more powerful locomotive for revolution than hate. It is the force of evolution that cures hate.

It is this growth in inner freedom that gives meaning and power to all political, social and economic freedom. "Liberty is the eternal creator of history and itself the subject of every history. As such it is on the one hand the explanatory principle of the course of history and on the other the moral ideal of humanity" ¹ Whether the age is favourable or unfavourable to it, "liberty appears as abiding purely and invincibly and consciously only in a few spirits; but these alone are those who count historically. . . . Liberty cannot exist differently from the way it has lived and always will live in history, a perilous and fighting life" ²

To expect a change in the nature of man may be an act of faith. To expect a change in the world without it is an act of naivety. The evolution of ourselves, our nations, the whole human family, is the purpose of life and the meaning of existence.

This possibility of conquering craggy human nature gives reason for and relevance to choice. It gives reasons to strive for excellence. It provides the guideline for our habits and relationships and the use of our lives. When we consciously decide to make this goal our own, we find we are at peace with ourselves and at war with the enemies of man. Every choice we make is important to the future of the human family, for our choices are the engine of evolution.

1 & 2 *History as the Story of Liberty*, Benedetto Croce, Morton (1941), p. 59.

Modernising Our Hearing

IN HIS BOOK on *The Evolution of Human Nature*, C. Judson Herrick concludes: "Changing human nature is the most important and the most difficult thing we have to do."¹

That human nature can evolve is as much a fact of our age as is atomic energy. And it is, I believe, of more significance for the future of the human family.

If we face this fact fearlessly and act accordingly we have the certainty that man and society at their worst are recoverable.

It has been my privilege to have lived in the homes of mine-workers and managers in the Midlands and South Wales. I have been in the homes of Communists and industrialists in Milan, the Ruhr, Rio, Récife and Calcutta. I know all kinds of people in Washington, Detroit, Los Angeles. I have talked with the Russians and Chinese, the Yugoslavs, Czechs and Poles in Tokyo, Switzerland and London. I know Buddhist leaders in Rangoon, Bangkok, Saigon and Kandy. I count as friends key men in Cairo, Rabat, Djakarta, Karachi and Tunis, Khartoum and Teheran, Nairobi, Johannesburg and Kinshasa. I have had the privilege of meeting and working with the Harijans and Hindu leaders, the Sikhs and Parsees of India. I have come to know how all these people live, what they fear and what they long for. I know from first-hand experience that men of any race, class and colour,

1 *The Evolution of Human Nature*, C. Judson Herrick, Texas (1956), p. 84.

of any political or ideological creed, of faith and no faith, can begin to change and become the builders of a new world.

The power for this change comes through communication. The brain is a communication centre. We receive information through the sense organs, from tongue and typewriter, teleprinter and Telstar, TV and transistor. Our cerebral circuitry stores and processes this information; then, through the tongue, the muscles of the face, the hand and the body and the feelings, we give a response. To a large measure our thoughts and actions are programmed by the input of information received from the world around us.

By means of communication all the developments of past generations become the possession of the present generation. What the genetic code does, in passing on the advances of structural evolution, communication does for moral and psychological evolution. Whereas structural evolutionary development has taken millions of years, the next stage of evolution can come with the speed of communication.

Our feelings are another form of communication. We sometimes feel or sense that a proposition is right or wrong, without having any facts upon which to rest our intuition. For example, sympathy contains information of another person's state of mind. Writes Professor Hocking of Harvard University, "Our experiences of love and beauty have a decisive word to say. We speak of them as 'feelings': what if they are also knowings? I suggest that they are such: that they afford an initiation into the nature of objective reality—in brief that they are, of themselves, not emotions only but moments of metaphysical insight."¹

No feeling should be disregarded—but every feeling should

1 *Types of Philosophy*, W. E. Hocking, Sculina (1959), p. 309.

be tested. A feeling of uncertainty needs to be heeded and evaluated—as does a feeling of certainty. Both can be misleading—but both can lead to the truth of a matter hidden to other means of understanding.

We are also programmed by the voice of our hereditary nature. We hunger for security, creature comforts and success. The lust to get our own way, personally and nationally, for the sake of the security, the benefits and the success involved, is a prime mover of man. We respond to this lust by manipulating the environment. This urge to control and exploit the world around us is an inborn drive in every man and woman. We can see it most clearly in a child. When a child is denied its own way, it opens its mouth and screams. As we get older we develop slightly more sophisticated techniques for expressing our will. The voice of our selfish interests has a major influence in determining personal and national policies. It is the emotional power behind materialism.

We also have an input from the voice of evolution. This is the voice which marks the difference between the animal brain and the human brain. This voice commands us to serve the needs of men and nations. It generates in us the love necessary to do it. It prompts us to be responsible for the human family. This voice produces policy. It is policy just as practical and more revolutionary, because it is evolutionary, than that generated by the fears, hates and greeds of our hereditary neuro-endocrine structure.

Morocco achieved independence from France without bloodshed. Responsible for that development is the evolutionary growth of two friends of mine—a Moroccan and a Frenchman.¹ The Moroccan, Ahmed Guessous, in 1954 was the head

¹ This story is told in *Lords of the Atlas*, by Gavin Maxwell, Longmans (1966).

of the Department of Agriculture in Marrakesh and a leader of the independence movement. The Frenchman, Pierre Chavanne, was a farmer who had a plantation near Marrakesh. Chavanne learned to listen and obey the voice inside him. He had the thought to thank the head of the Agricultural Department in Marrakesh for the help he had received during a locust plague. He found himself face to face with Guessous. Guessous was so impressed with the attitude of Chavanne that he visited him in his home.

Subsequently both men came to Caux in Switzerland. Guessous took strong exception to a talk I gave on Morocco on his arrival in which I referred to his arch-enemy, El Glaoui, the Pasha of Marrakesh. He demanded that the Glaoui be never referred to again in his presence. During lunch I told Guessous that I knew that in my own life I was no closer to God than to the person from whom I felt most divided. This so shook Guessous that on his return to Morocco he went to see El Glaoui. He apologised to him, not for his political convictions but for his hatred.

According to the Glaoui's son, the Chief Justice of Marrakesh, this apology had such an effect on the Glaoui that he asked the French to return the exiled Sultan to his rightful throne. It had been the coolness between the Sultan and the Pasha that had given the French the strength to remove the Sultan. While these events were developing, Si Bekkai, the Pasha of Sefrou, who had been exiled from his home in Morocco to France, came to Caux with Masmoudi of Tunisia. When the new Moroccan Government was formed, Si Bekkai was made Prime Minister.

There are obviously many other factors in the making of this bit of history. But it is fair to say the changes in Chavanne and Guessous had at least a catalytic effect on the peaceful

development of the relationships between Morocco and France at that time.

It is not always easy to distinguish between the voice of our heredity and the voice of evolution. The voice of heredity, associated as it is with our ambitions, hates, fears and lusts, can be so strong as to monopolise our receiving set all day and most of the night too. In fact, the demands of our nature are so strong that we employ our brains to rationalise doing what we want to do. There are aids which can help us to distinguish between the voice of evolution and the voice of our cellular chemistry.

First write the thoughts down as you listen to the voice of evolution. We are built with one mouth and two ears. It may be normal to listen more and talk less. It is not necessary to put the ideas down on paper—many can neither read nor write. But for those who can it is a help. I take time specifically first thing every morning to do this. I began with just five minutes. It proved to be so effective I now take at least an hour first thing in the morning and at other times during the day. There is nothing new in this experience.

Father Alphonse Graty was a churchman, scientist and philosopher who died at Montreux in 1872. He was a member of the religious order of the Oratory and also of the French Academy. He wrote a book called *Les Sources*, in which he speaks of listening. "St Augustine wrote a book called *De Magistro*, in which he shows that there is only one master, a single master who is inside us. Moreover you have often heard it said and have probably said yourself that God is a universal light which illumines every man who comes into the world. Do you believe that? If so, you must accept the consequences. If you believe that you have within you a master who wants to teach you eternal wisdom, say to this master resolutely and

as definitely as you would say it to a man face to face: 'Master speak, I am listening.' But having said 'I am listening', you must listen. That is a simple thing, but it is of capital importance.

"It is in fact in the morning, before the business and distractions of the day, that we must listen to God. Let us be specific. What exactly is listening to God? In practical terms shall I listen like the Indian mystics from early dawn till mid-day? Shall I sit with my head bent and my forehead in my hand and with eyes fixed on the heavens? What shall I really do?

"Here is your answer—you will write."

I write my ideas for two reasons: I have a bad memory for uncomfortable things which I need to remember; I have a bad memory for suggestions which interfere with my own ideas. But the weakest ink, say the Chinese, is stronger than the strongest memory.

Then I also need to test the thought. I test the thought with five questions: Is it absolutely honest? Is it absolutely pure? Is it absolutely unselfish? Is it absolutely loving? And whose need will it help to meet? I then have a dividing line to distinguish between my hereditary and evolutionary urges.

These standards of perfection are not idealistic any more than any accurate measuring device is idealistic. They are the working instruments by which we can judge between two courses of action—the responsible and irresponsible. They enable us to face and accept corrective and truth. We reject them only to our disadvantage. "We only need to listen to the voices which come from intellectual, artistic, religious and political circles . . . to be faced with manifestations of indifference and irreverence to criticism and to truth . . . people who have mortified in themselves all the vigilant strength necessary for intimate discernment and clarity to suit their

private convenience in public life. . . . A bad theory and a bad conscience have the same origin, they rely upon each other and in the end they collapse on top of each other.”¹

The fact that the absolute cannot be defined with precision is in itself a virtue. For human concepts made precise are idealistic and strangers to the complexity of reality. But absolute honesty, purity, love and unselfishness as a measuring rod of daily aims and conduct shows the individual in his own conscience precisely where the next step in his growth needs to be taken.

Some matters may still be difficult to assess, even with the aid of these questions. Here I find a frank conversation about my ideas with a friend will often bring clarity as to which is the right course. Some have recourse to the authority of their Church. There are still millions who, in addition to the above tests, have moral and spiritual principles to which they can turn. For example, “I say love your enemies and do good to them who despitefully use you.” In the light of such truths our own questionings can often be resolved.

The first time I consciously listened to this voice I had the thought to return books which I had stolen to the proprietor of the university bookshop. They had been out of his shelves and my mind for three months. He had lost many books this way. I was the first to return some. He wanted to know why. I told him I was trying an experiment in absolute honesty. He got a shock and his books. I won a friend.

As I thought of absolute love and unselfishness a bitter relationship with the head of a school came to mind. We were rivals for popularity and position. I realised my criticisms were born of jealousy and ambition. I apologised and asked for help to be different. He asked me to coach his track and

1 *History as the Story of Liberty*, Benedetto Croce, Morton (1941), p. 42.

basketball teams. The whole school and a whole community was affected.

Then I faced the gap between the way I lived at home and the way I lived away from home. I had adopted the philosophy that what my parents did not know would not hurt them. I was honest with them. It revolutionised our relationships in the home. My parents gave me a ring as a token of the new understanding and common purpose we found as a family.

Such elementary putting right of what is wrong may, on first appearances, seem inconsequential. But such cleaning up is as relevant to the evolutionary process as scrubbing up before an operation is to a surgical procedure. Scrubbing up is not surgery, but there can be no successful surgery without it.

When we consciously obey the voice of evolution, our thinking and action, our aims and attitudes, change. We undergo an inner change. We become revolutionary. This inner voice is just as definite, adequate and accurate as a telegram. Often the ideas one receives are highly uncomfortable. They may well threaten our pride, our security, our creature comforts, our success and our relationships. They are always revolutionary, and often adventurously unexpected in their results. This experience can be verified by all who will honestly make the experiment.

The evolution of society does not depend on great leaders, upon mass demonstrations or a mass movement, important as these can be. It depends on the change in individuals who decide and keep on deciding to listen and to obey the voice of evolution and to keep on obeying it.

Could it be that one of the highest functions of the brain is to distinguish between what God wants us to do and what we want to do? If we are honest we rarely use the brain for that purpose. If we did it is conceivable we would solve the moral

dilemma created by our abilities in fields of science and technology, e.g. in medicine. The researchers might then be led to pursue lines of investigation based more on meeting the needs of the human family than on what can be done technically. Developments in science which affect the life of men and society cannot be divorced from moral judgment and moral guide-lines, and these guide-lines need to come from within men—not from Governments.

It is becoming increasingly important for man to find this direction. If we continue to accept information only from our neuro-endocrine structure, we stand in danger of being totally mechanised. We may well find ourselves controlled by the necessities of a technological age, the techniques of bureaucracy and automation, high-pressure marketing and a computerised, de-personalised system of life.

Jacques Ellul, in his book *The Technological Society*,¹ draws the conclusion that technical necessity will inevitably make men the slaves and servitors of techniques. In a technical age all human values and freedoms are sacrificed on the altar of the great god Efficiency. Man fills his barns and brains, but loses his liberty. In that state he has all the freedom of a fly in a bottle.

This development might be forestalled, he believes, by the emergence of new phenomena. He gives three examples:

- 1 If a general war breaks out and if there are any survivors, the destruction will be so enormous and the conditions of survival so different that a technological society will no longer exist.
- 2 If an increasing number of people become fully aware of the threat the technological world poses to man's personal

1 *The Technological Society*, Jacques Ellul, Cape, (1965).

and spiritual life and if they determine to assert their freedom, they would upset the course of this evolution.

- 3 If God decides to intervene, man's freedom may be saved by a change in the direction of history or in the nature of man.

We have come to a stage when we must either change men or be enslaved or even destroyed by our techniques. Our minds, however well trained, however sincere, cannot resolve our problems. We need interrupting. We need the force of a passionate aim in life and the strategy for achieving it—which the voice of inner communication provides.

Modernising Our Feelings

THE MORE we unravel the mysteries of brain and body function the more evident it becomes that we are built for moral evolution. Neurological research has made it clear that for our brain-body mechanism to function normally we must accept high purpose and the highest standards of moral excellence.

Man evolves when he uses his brain for unselfish, rather than selfish aims. It means caring enough to have a strategy to meet the needs of the neighbours across the street, across the border and across the world. The brain, so employed, is functioning in line with the evolutionary process. Says Dr Paul Chauchard, the French neuro-physiologist and research scientist, "To keep the brain in equilibrium we must possess the morality of involvement and personal reflection in the service of what is human. . . . We can make ourselves sick by refusing to act like free men. Evil, sin, vice, is a non-human or sub-human way of using the brain and leads to a kind of neurosis. It wilfully imitates cerebral disintegration. To love your neighbour as yourself is the best prescription for good cerebral equilibrium—the best use of the pre-frontal lobe."¹

Yet hate is one of the prime movers of modern man. Some of the world's sharpest brains—brains which formulate national and racial policies—are engined by hate.

Mao Tse-tung is said to have told an Arab statesman, after

1 *The Brain*, Paul Chauchard, Grove Press (1962).

the Arab-Israeli war, "You have only lost a battle. What is that in comparison with the capital of hate you have gained. If you are ready to spend six to seven million lives, you can gain your objective."

Today our hates and fears rob millions of food, education and a fair chance in life. China, Russia and America spend billions in protecting themselves from each other. Pakistan and India spend one-third to half of their budgets on the machines of war which grow no food and build no cities.

As well as striving for nuclear disarmament treaties, neutral zones, non-proliferation pacts and anti-missile systems, all of which are matters of urgency, we need to create men who know how to deal with hate and fear in leaders and led. The basic weakness of the United Nations Organisation is that there is no plan to cure the problems around the table which are just as great as the problems on the table.

Hate, fear and lust are accompanied by physical changes in man's brain and body. These primary emotions produce a change in blood-pressure, heart rate and in the activities of glands and muscles. Sexual lust gorges the skin and sex organs with blood. Anxiety can cause painful cramps in stomach and bowel. Doctors describe what they call a "resentful" stomach in which the lining of the stomach blushes red in anger as does the man's face. Our passions have a vital influence on our mental processes as well. Sexual indulgence is accompanied by mental depression and the loss of initiative and concern. Fear can drive every thought from a man's mind and leave him whimpering in helplessness. Hate can rob a man of self-control. It often takes a very slight injury, real or imagined, to generate a chronic hatred.

I once nursed a hatred for several months. I refused to speak to my colleagues who had simply pointed out where I could

have improved my work. But a feeling that I had been misjudged kept my bitterness smouldering. The effect was costly. I became less creative and effective and withdrew from responsibility. Then one day a friend, by asking me what was wrong, brought the whole story tumbling out. Five minutes of honesty with the men I hated, together with an apology, liquidated the bitterness and restored harmony and well-being to body and mind.

The special part of the nervous system which is responsible for the physical sensations accompanying fear, hate and lust is not under the control of the will. This automatic nervous system has two sides to it. One stimulates activity, the other inhibits it. The stimulating side, for instance, increases the heart rate. The inhibiting side slows the heart down. For normal health these two systems balance each other. They keep our blood circulation, in fact our whole internal environment in a state of maximum function ready to meet the constant changes in the external environment.¹

The mechanism which makes these adjustments possible is the same as that used in modern machines. For example, the temperature of a room can be kept at a fixed level by controlling the rate of heat production. The rate can be increased or decreased automatically. When the temperature changes upwards, a signal goes from the thermometer in the room to the source of heat and reduces the amount of heat being generated. A message originated by a change in environment is fed back to the heater and has an inhibiting effect upon it. On the other

1 Cf. *Cybernetics of the Nervous System, Progress in Brain Research*, Volume 17 (1965); *Dynamical Systems in Physiology*, Norbert Wiener, Professor of Mathematics at the Massachusetts Institute of Technology since 1932, in *The New Scientist*; *Concept of Homeostasis in Medicine*, Norbert Wiener, in *Transactions and Studies of the College of Physicians of Philadelphia*, Volume 2; *Cybernetics of Natura! Systems*, D. Stanley Jones (1960).

hand, when the temperature in the room falls below a certain level, a signal is fed back to the source of heat and increases heat output.

Although the brain is bombarded with millions of signals from outside and inside the body all day and all night, it maintains its equilibrium thanks to this mechanism of feed-back.

Such a feed-back mechanism causes the pupil of the eye to get smaller in the light and larger in the dark. When a strong light hits the eye, the pupil contracts, the lids close. The intensity of the light signal has, through a feed-back circuit, set in motion a series of muscular actions which, by constricting the pupil, reduce the amount of light which can enter the body. Thus the brain is protected from too severe a stimulus.

If we darken the room, on the other hand, the lessened intensity of light stimulates muscular action which dilates the pupil of the eye, and opens wider the lids.

This control by feed-back is also the means by which the body regulates the activity of the glands. The thyroid gland, for example, secretes a chemical or hormone which determines the rate of activity at which the cells of the body operate. If there is too much thyroid secretion the heart works harder and the appetite is increased. If there is too little thyroid output the heart slows down, the blood pressure falls and the person gets sluggish in body and mind. A feed-back mechanism keeps the thyroid functioning so that there is neither too much nor too little output in face of the varied demands of life.

The thyroid secretion activates a cluster of nerve cells in a part of the brain known as the hypothalamus. The hypothalamus is a relay centre. It receives and distributes all messages which reach the brain from the organs of the body. When the hypothalamus receives a message from the thyroid, it immedi-

ately sends a signal to the body's master gland, the pituitary, situated nearby. The pituitary, on receipt of this message from the hypothalamus, secretes a substance into the blood-stream. This pituitary substance, when it reaches the thyroid, stimulates the thyroid to increase its output. This increased output of thyroid substance in its turn slows down the action of the pituitary. Like an increase in the temperature of a room, which by feed-back turns down the output of the source of heat, so an increase in thyroid secretion turns down the draught blowing on the thyroid from the pituitary. Thus a balance is maintained between the pituitary and thyroid activity. The feed-back control of the thyroid is so similar to that of a thermostat that it has been called the "thyrostat".¹

Hate and fear make their effect felt upon the brain and body through the branch of the nervous system which stimulates activity. In other words when we hate or fear we set up neural signals which intensify the natural processes of the body. This is how it is done. Hate triggers a burst of neural signals from the brain which reach the adrenal glands situated just above the kidneys. The adrenals secrete adrenalin, a powerful chemical which clamps down the blood-vessels in the skin, shunts the blood to the muscles, stimulates the heart to greater activity, and prepares the body for vigorous action. If hate and fear persist, or frequently recur, the effect is to chronically overdrive the engine and throw the activity of brain and body out of balance.

Lust, on the other hand, is hooked up with the inhibiting side of the automatic nervous system. Sexual lust causes a slowing down of brain activity. This effect is demonstrable in the laboratory. The hypothalamus, in addition to being a relay

1 *Cybernetics of Cyclothymia*, D. Stanley Jones, *Progress in Brain Research*, Volume 17 (1965).

centre, contains groups of nerve cells which control the desire for food, sex and water. The stimulation of the appropriate cells will cause a cat to drink, and to keep on drinking long past the point of its need. The stimulation of another group of cells causes the animal to refrain from drinking even to the point of death, and with water available alongside. In the same way, by stimulating other cells a cat can be made to eat or to stop eating. When yet another group of cells in the hypothalamus is stimulated, a burst of uncontrollable rage is produced. Stimulation of other cells makes the animal lose its rage and the desire to fight. Some cells, when stimulated, have the power to induce sexual aggression, others make the animal lose interest in sex.

Stimulation of these various centres results in reactions which are quick to arise and swift to pass. But not so with the sex centres. Here the effect is slower to be roused, lasts longer and is associated with a diminution of brain activity over a period of time.¹

In man sex occupies the nervous system with activity below the belt, at the cost of activity above the neck. "Every paraplegic is a philosopher," said Cushing, the great pioneer of modern neuro-surgery. For he observed that damage to the spinal cord in people which cut the nerve pathways between the brain and the sex organs replaced sexual activity with cerebral activity. Cushing noted that in these cases there was a heightened production of ideas, reflection and thought.

Guilt also has a physiological expression. Unrelieved guilt can be a brain inhibitor of pathological force. When conscience is deadened the feeling of guilt is lessened. We feel more comfortable as we indulge in hate and fear and lust. But those trying

1 *Correlative Physiology of the Nervous System*, H. J. Campbell, Academic Press (1965).

to remove all sense of guilt from man are robbing him of the normal neurological corrective to the overdrive of fear and hate and lust. This overdrive, unchecked, can lead to neurotic behaviour. To be relieved of guilt, we need to break free from our selfish aims, attitudes and actions which cause the sense of guilt in the first place. Unrelieved guilt can produce too much cerebral inhibition and may result in neurotic depression. But a sense of guilt which makes us stop and change course is an instrument for maintaining the brain in balance.

Fear, hate, lust and guilt are all centred on the self. They can lead to an anxiety state, a fight, pain in the stomach and bowel, depression, headache, fatigue and in some circumstances even death. Recently in England a boy of four years lost sight of his father during a thunderstorm and dropped dead. His heart was arrested by too great a load of nervous impulses, generated by panic.

Rage, lust and fear are marked by chemical changes in the nerve cells. Attempts are being made to control these emotions with drugs and electrical stimulators which can change the pattern of chemical activity in the brain cells. A scientist has placed electrodes in the brain of a bull. The bull, charging at a red flag, was made instantly docile when a signal was sent into its brain from a transmitter held in the hand of the experimenter. The same technique has been used on some humans who are rendered incapable of productive work because of violent changes in mood. The patient can prevent his moods getting out of control by pressing a button on a small box which is connected to electrodes implanted in his brain.

That millions could thus be controlled by the state, and rendered immune to fear or hate, or made to fear and hate, is not beyond the realm of possibility.

We may soon have precise knowledge of how various drugs

and chemicals work on the brain. It is then but a short step to synthesize drugs which are aimed to influence specific emotions. This is a development which, in application, is dangerous.

Dr Samuel Eiduson, Chief Research Biochemist at the Neuro-Psychiatric Institute and the Brain Research Institute of the Centre for Health Sciences at the University of California, Los Angeles, observes in an article¹, "Different individuals using different drugs to achieve different conditions of heightened sensory stimulation or tranquilisation, may be unable or unmotivated to question existing social thought and standards of behaviour and thus become a conforming mass, sluggish to change in an ever-changing and complex environment."

There is a working answer to the power of hate and fear and lust. And it is not to be found in a bottle or in a transistor. A truly selfless, creative concern for people is the counter-force to the disintegrating effects of fear, hate and lust. This concern involves a commitment to man's evolutionary goal, the development of a new type of man, and a revolution of society world-wide. "Perfect love casteth out fear",² and hate and lust as well.

Says Sir Charles Sherrington, Nobel Prize winner for his work in physiology at Oxford: "Ours is a situation which transforms the human spirit's task, almost beyond recognition, to one of loftier responsibility. . . . We have, because human, an inalienable prerogative of responsibility which we cannot devolve, no, not as once was thought, even upon the stars. We can share it only with each other."³

Herrick adds, "In terms of strict biological survival value,

1 *The Biochemistry of Behavior, Science Journal*, Volume 3, No 5 (1967).

2 1 John 4, 18.

3 *Man on His Nature*, Sir Charles Sherrington, Cambridge University Press (1953), p. 294.

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altruistic behaviour marks the highest level of cultural evolution.”¹

The strategy for living every day in such a way that we advance to man's true objective is available to all who will listen to the voice of evolution inside them. For when we heed the voice of the Creator and obey it, the beast is curbed, hates melt, fears vanish, lusts are redirected and wrongs are put right.

To accept the task of world change as our task and to test our living by absolute moral standards, and constantly to make the adjustments indicated, is the road to heightened mental effectiveness, harmonised cerebral function, evolutionary development and a world remade.

1 *The Evolution of Human Nature*, C. Judson Herrick, Texas (1956), p. 221.

Modernising Our Striving

WHEN ROGER BANNISTER broke the four-minute barrier for the mile run, he made commonplace what was considered until then impossible. It was a step in the evolution of running.

Like all organic growth, each phase of evolution springs from a previous development. Now the moral evolution of humanity can be most readily traced through the record of the Israelites. It is therefore not unexpected that the prototype of the new type of man should evolve from the life and faith which the most progressive of them had practised. Christ is obviously the climax of the moral and psychological growth which, despite their backslidings, featured the story of the Jewish tribes. He was the greatest happening in the history of human evolution.

He may have been a million years ahead of His time, but the fact that He lived the way He did brought hope to all humanity and set the goal. He demonstrated conclusively that a man can be freed from slavery to his inherited nature and to his environment.

The evolutionary road is a tough road. It could not be otherwise, for human nature is tough. Man's nature is part of the bone and blood, muscles and nerve, claw and jaw which he shares with the jungle. Christ was publicly whipped. He was made to carry a cross, the weight and awkwardness of which made Him stumble in the streets before those who had looked

upon Him as their hope. He was executed as an enemy of the State. The seemingly complete failure of His aims, methods and men was blazoned for all the nation to see.¹

He had a radical set of values.²

He was at war with evil, and had the triumph of being unswayed from His course, though an empire and His friends should oppose. He carved another foothold in the evolution of mankind and forged another advance in the story of liberty. He had the solid joy of being relevant, of using brain, muscle, time and work for a goal worthy of the human brain.

Christ's experience dramatized the character of the evolutionary struggle.

"Thy Kingdom come, Thy will be done on earth" was His stated aim. He publicly committed Himself to break the grip of evil on men's minds; to loosen the nets of corruption; to free the earth of exploitation; to liberate man from the yoke of his own nature; to replace his heart of stone with a heart of flesh, so the hungry are fed, the homeless housed and the souls of men starved of faith, forgiveness and purpose are

1 Matthew 27, 29-31. They twisted some thorn twigs into a crown and put it on His head and put a stick into His right hand. They bowed low before Him and jeered at Him with the words, "Hail, your majesty, king of the Jews!" Then they spat on Him, took the stick and hit Him on the head with it. And when they had finished their fun, they stripped the cloak off again, put His own clothes upon Him and led Him off for crucifixion.

2 Matthew 10, 34-39. "Never think I have come to bring peace upon the earth. No, I have not come to bring peace but a sword! For I have come to set a man against his own father, a daughter against her own mother, and a daughter-in-law against her mother-in-law. A man's enemies will be those who live in his own house. Anyone who puts his love for father or mother above his love for Me does not deserve to be Mine, and he who loves son or daughter more than Me is not worthy of Me, and neither is the man who refuses to take up his cross and follow My way. The man who has found his own life will lose it, but the man who has lost it for My sake will find it" (Phillips).

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satisfied. His is a concept of revolution which far outstrips anything programmed by the advocates of Black Power, White Power, Yellow Power or Red Power.

Christ was a radical. He demanded absolute honesty. "Let your yes be a plain yes, and your no a plain no."¹ Let your word be as good as your bond, be so trustworthy you need neither oath nor contract. It rules out bluffing and secrets in the home. It means a full day's work for a full day's pay, and a full day's pay for a full day's work.

In the matter of sex He called for absolute purity. "You have heard that it was said to the people in the old days, 'Thou shalt not commit adultery.' But I say to you that every man who looks at a woman lustfully has already committed adultery with her in his heart."² To live the absolute may seem as though one is deprived of an eye or a hand.³ But he saw men and women masters of their flesh, its passions absorbed in a greater passion. "It was because you knew so little of the meaning of love that Moses allowed you to divorce your wives! But that was not the original principle. I tell you that anyone who divorces his wife on any grounds except her unfaithfulness and marries some other woman commits adultery."⁴

I wish those who advocate abortion as a troubleshaver, who push the wholesale use of contraceptive pills and propagate permissiveness would get off Cloud 9 into the wards of a hospital and face reality.

While serving as an intern at the University Hospital in Edmonton, Canada, I was one day hurriedly called to see a girl who had just been admitted. She was about seventeen years of

1 Matthew 5, 37 (Phillips).

2 Matthew 5, 27-28 (Phillips).

3 Matthew 5, 29-30.

4 Matthew 19, 8-9 (Phillips).

age. She was alone. Her face was bluish-grey. She whimpered between feeble gasps for breath. With the last beat of her heart she gave birth to a dead infant. Her abortion attempt had resulted in a blood infection which killed her. It is true that abortions in capable surgical hands can usually avoid such an outcome, but in Japan, where abortion was made legal, it is estimated that at least half the women do not avail themselves of skilled medical help. The same is true in Sweden.

The new moralists may be able to argue away a sense of sin but not a case of syphilis. Venereal disease is on the increase and in some cities is reaching epidemic proportions. The use of contraceptives is bound to increase the spread of disease. The pill offers no protection against the gonococcus or the spirochete. Protection against conception is not protection against infection.

A girl does not know whether a promiscuous man is infected or not. Nor does a man know whether or not a permissive girl is diseased.

In the out-patient clinics we treated the girls from the brothels, invariably infected with both gonorrhoea and syphilis. But it was not just the prostitutes who needed care. While on the staff of the Henry Ford Hospital in Detroit I attended a most attractive couple. I visited them in their beautiful home. He was a business executive. She was ill. She had a severe infection of gonorrhoea. I will never forget the pain, misery, expense and frustrated hopes which that woman endured. "Forsaking all others . . . till death do us part" may be an old-fashioned concept of marriage, but it is sound scientific practice.

In a day when abortion is seriously put forward as a rational programme, pills are made a substitute for purity, and permissiveness is portrayed as the portal to the promised land, I

need say nothing about the rightness or wrongness of these attitudes; the silliness of them speaks so loudly. Many fine intellects have propagated this animalisation of man. Aldous Huxley in *Ends and Means* told why he did it. "I had motives for not wanting the world to have a meaning, and consequently assumed that it had none, and was able without any difficulty to find satisfying reasons for this assumption. For myself, as, no doubt, for most of my contemporaries the philosophy of meaninglessness was essentially a matter of liberation. The liberation we desired was simultaneously a liberation from a certain kind of political and economic system and liberation from a system of morality. We objected to the morality because it interfered with our sexual freedom."¹

After the study of some eighty cultures, J. D. Unwin wrote a book lauded by Huxley called, *Sex and Culture*. Unwin writes: "Sometimes a man has been heard to declare that he wishes both to enjoy the advantages of high culture and to abolish continence. Any human society is free to choose either, to display great energy or to enjoy sexual licence. The evidence is that it cannot do both for more than one generation."²

If Unwin is correct, the Chinese and Russian societies, because of their present battle to impose restraint on sex indulgence, will increase steadily in creative energy, while the nations which propagate permissiveness will decline.

A country's strength will be multiplied by ten when its men and women aim to be pure. Those who live purity love it and would not do without it. Impurity is more than what a man does in bed, it is what he does in his head. Purity becomes a greater attraction to those who practise it than impurity is to

1 *Ends and Means*, Aldous Huxley, Harper (1937).

2 *Sex and Culture*, J. D. Unwin, MC, PhD, Oxford University Press (1934).

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those who indulge in sexual play and become enslaved by it. Purity is the most efficient and easily applied contraceptive ever given to man. It is more than continence. It is "no" to indulgence and a mighty "yes" to a revolution radical enough to change men. Continence, like contraception, does not just happen, it is a choice. When a man decides to live purity he finds a power within him doing for him what he cannot do for himself.

From selfish men Christ asked absolute unselfishness. If a man asks your coat, give him your shirt as well. If he forces you to go one mile, go two. "Give to the man who asks anything from you, and don't turn away from the man who wants to borrow."¹ Unselfishness is the generous response to the demands that others make upon us. It means living without demand ourselves. To be unselfish we have to live on the give instead of on the get. Every relationship is transformed when we do.

From the hate-filled and from the indifferent, Christ asked absolute love: Love your enemies, bless them that curse you, do good to them that hate you, pray for them that spitefully use you and persecute you. Be perfect as your Father in Heaven is perfect, for He makes His sun to rise on evil men as well as good. He sends the rain on the honest and dishonest alike. He gave Himself just as lavishly to the unlovely self-righteous as to the congenial winebibbers, gluttons and harlots. He did not even divide from the man who sabotaged His aims and His comrades. He knew how untrustworthy Judas was, and that one day he would sell Him out. But He kept Judas at His side. It was Judas who broke away.² We are no closer to

1 Matthew 5, 42 (Phillips).

2 Luke 22, 4. He (Judas) went and discussed with the chief priests and officers a method of getting Jesus into their hands.

the spirit and character of Christ, our prototype, than we are to those from whom we feel most divided and for whom we feel least responsible.¹ Said the American Negro scientist, Booker T. Washington, "I am resolved no man shall drag me down so low that I will hate him."

It takes more thought to love than to hate. Any coward can hate. It takes courage to love. Any self-centred man can hate and blame. It takes a radical selflessness to love, and to cure. Any class-conscious, colour-conscious or country-conscious man can hate. But it takes a miracle in the human heart for a man to love enough to work for the evolution of the Russians and the Americans, the black, the white, the Right-wing and the Left-wing, the young and the old, the very young and the very old.

Christ fought issues publicly, boldly and with strategy. He was deeply troubled by the suicidal policy of His nation. He foresaw the consequences of their corruption and self-righteousness. He warned that the sapping of the nation's moral strength could only lead to disaster. He thundered at whole cities for their godlessness and forecast for them a doom and destruction to exceed anything in their history.² The

1 Matthew 5, 23-24. So that if, while you are offering your gift at the altar, you should remember that your brother has something against you, you must leave your gift there before the altar and go away. Make your peace with your brother first, then come and offer your gift.

2 Matthew 11, 20-24. Then Jesus began reproaching the towns where most of His miracles had taken place because their hearts were unchanged. "Alas for you, Chorazin! Alas for you, Bethsaida! For if Tyre and Sidon had seen the demonstrations of God's power which you have seen they would have repented long ago in sackcloth and ashes. Yet I tell you this, that it will be more bearable for Tyre and Sidon in the day of judgment than for you. And as for you, Capernaum, are you on your way up to Heaven? I tell you you will go hurtling down among the dead! If Sodom had seen the miracles that you have seen, Sodom would be standing today. Yet I tell you now that it will be more bearable for the land of Sodom in the day of judgment than for you" (Phillips).

administrators of those cities could not have been much pleased with Him. He knew some would rather see Him dead than suffer their selfishness, self-righteousness, arrogance and pride to be curtailed.¹ His public analysis of the Establishment, their double-dealing, corruption and hypocrisy is one of the most incisive in all of recorded history.² The rulers were fervent nationalists and patriots, but He faced them so fearlessly and publicly with their evil that with patriotic sincerity they decided to eliminate Him. "One man must die for the nation," they explained.³ Christ wept when He pondered the future of His people.

But He did more than weep. He followed His diagnosis with surgery. It was a clinical cleansing of His nation's centre of power. He drove out those who had turned the Temple into a crooked market place.⁴ He tackled the place and the corruption which, if cured, would have most surely brought new moral strength to the whole nation. He did what the responsible leaders should have done. Some were won by His courage and open battle. Others hated Him for cutting into their

1 Matthew 12, 14. Then the Pharisees went out, and held a council against Him, how they might destroy Him.

2 Matthew 23, 13-38.

3 John 11, 47-53. Consequently, the Pharisees and chief priests summoned the council and said, "What can we do? This man obviously shows many remarkable signs. If we let Him go on doing this sort of thing, we shall have everybody believing in Him. Then we shall have the Romans coming and that will be the end of our holy place and our very existence as a nation!" But one of them, Caiaphas, who was High Priest that year, addressed the meeting: "You plainly don't understand what is involved here. You do not realise that it would be a good thing for us if one man should die for the sake of the people—instead of the whole nation being destroyed" (Phillips).

4 Luke 19, 46.

cash and conscience. They determined to destroy Him for it.¹

His means were as revolutionary as His aims. He could not be bullied by the sword, bought by gold, nor swayed by public opinion. He was not out to lure the masses but to cure their selfishness.

Christ was unwaveringly fearless in His obedience to the voice inside Him. He told His nation, "The very words I say to you are not My own."² "I do nothing on My own authority but speak simple as My Father has taught Me."³ "I do not live to please Myself but to do the Will of the Father Who sent Me."⁴

He drew a knife-sharp line between the evolutionary and the counter-evolutionary in man's aims and methods. "Men's approval or disapproval means nothing to Me."⁵ To Peter, His friend who advocated a policy that would avoid the Cross which Christ saw was coming, He shouted, "Get thee behind Me, Satan."⁶

The anti-evolutionary spirit in each of us tries to get rid of Christ altogether. At the least we cut Him down to a size which tolerates our comforts, corruption, impurity and ambition. We do not like to have people oppose us. We even delude ourselves into believing that because people agree with us, some change is taking place. Criticism is uncomfortable. Although others are rarely satisfactory to us, we indignantly reject the idea that we may not be satisfactory to them. We

1 Luke 19, 47. The chief priests, the scribes and the national leaders were all trying to get rid of Him, but they could not find any way to do it since all the people hung upon His words (Phillips).

2 John 14, 10 (Phillips).

3 John 8, 28 (Phillips).

4 John 5, 30 (Phillips).

5 John 5, 41 (Phillips).

6 Matthew 16, 21-23.

hate the man who prods our conscience. We either change or seek to destroy him.¹

I was brought up as a boy in a small town in a Western Canadian farming community. We had good years and lean, depending on the crops and the market for wheat. A Jewish family owned the general store where we bought groceries and sugar, tea and nails, shoes and raisins. The owner, Louis Briker, and my father were friends. When the crops were bad and the winters long, Louis would carry the penniless farmers on his books, never asking for money which he knew they did not have. He often wrote off the debts with a generosity I have seldom seen equalled. Every Passover his family would present our family with a gift of unleavened bread. And often Louis would thrash over with my father the question of who crucified Christ, the Jews or the Romans. But whether the Jews or the Romans crucified Christ is really not the point. The fact is that Christ was killed by people who, faced with the evil of their own hearts and nation, hated Him passionately when He challenged them to change.

Christ was committed to the evolution of humanity. His work was the redemption of man. Because of the nature and size of His aim He welcomed everybody and had a plan for everyone—young and old, prostitute and priest, governor and governed, the blind, the deaf, the weak, the strong, the sick and the well, the poor and the rich, the widow and the orphan, the fisherman, the civil servant, the soldier and the lawyer.

The new type of man loved people enough to live and die for their evolution. A responsible concern for the human condition was His locomotive. He drew a circle which brought

1 John 7, 7. Jesus replied by saying, "... You see, it is impossible for you to arouse the world's hatred, but I provoke hatred because I show the world how evil its deeds really are" (Phillips).

MODERNISING OUR STRIVING

the whole human family into His family. He had a passion, philosophy and plan to reach every person on earth.

Christ is so far ahead of us in aim and motive that every man, woman and child who wants to follow Him can grow to be like Him. His type of manhood and leadership is the goal of human evolution. Christ can take us across the line from beast to man. He is the answer to the dilemma of history that, though we mean well, we do badly.

With His radical attitudes and living, Christ etched on the mind of man a blueprint for architecting a life and a society far more revolutionary than any of the ideologists, or the nominal Christians have yet drummed up. He was far more up to date than we are in aim and character. His is the type of man to meet this age of change head on and master it.

When seen in the perspective of evolution, the central truth of life is that Jesus Christ just exactly suits, saves and satisfies the hunger in human hearts for a new life and a better world.

Modernising Our World

THE NEXT PHASE of man's evolution is not continued by the same mechanism which is thought to be responsible for the development of his body and brain. Evolutionary theory makes man the product of his environment. He had nothing to say about how he would develop.

A further step in development, however, requires an entirely different mechanism. The individual has the freedom to choose the evolutionary path or to reject it. The next phase of evolution does not happen to a man without his conscious participation. He must make it happen. According to F. W. Matson in his book *The Broken Image*, it is evolution through a revolution in man's aims and character—"the struggle of life is not for survival but for growth; its goal is not being but becoming."¹

Many scientists believe that man has a potential still to be realized. In his book, *Man in the Modern World*, Julian Huxley writes: "Progress has hitherto been a rare and fitful by-product of evolution. Man has the possibility of making it the main feature of his own future evolution, and of guiding its course in relation to a deliberate aim."²

Huxley, de Chardin, de Nouy, Herrick, Simpson—to mention only a few—have written extensively upon the next phase of man's development. Buchman, the initiator of Moral Re-Armament, held that the development of a new type of

1 *The Broken Image*, F. W. Matson, George Braziller (1964).

2 *Man in the Modern World*, Julian Huxley, Chatto (1948), p. 21.

man was not a matter of speculation, but a matter of personal, passionate participation. He rallied and trained men and women of every race and class in every continent to work for this change in man as the priority purpose of their lives. For Buchman this evolution of man required the aim, strategy, commitment, passion and sacrifice of revolution.

Buchman's whole life and work and philosophy was centred on his conviction that the future of humanity depended on this next urgent phase of change in man and society. He believed anyone, whoever he was, could and needed to be radically different. "Until we deal with human nature thoroughly and drastically on a national scale," he once said, "nations must still follow their historic road to violence and destruction".¹ Buchman believed that inner communication was the prime agent for this evolution. He made this real for millions in his lifetime.

The prophetic voices of history publicised by tongue and pen this inner communication which showed the way forward and cut across the counter-evolutionary concepts and practices of their people. These men had the courage to speak the truth however unpopular their message might be. They listened and gave their leaders specific direction in national and international affairs. They warned about treaties and invasions; they anticipated disasters. They faced both rulers and ruled with their sins. Their mark was their resolute trust in and obedience to the inner voice.

Sir Arthur Eddington in his book *New Pathways in Science* writes of this inner communication, "Even as light and colour and sound come into our minds at the prompting of a world beyond, so these other stirrings of consciousness come from

1 *Remaking the World*, Dr Frank N. D. Buchman, Blandford Press (1961), p. 156.

something which, whether we describe it as beyond or deep within ourselves, is greater than our own personality. . . . The man who commonly spoke of his ordinary surroundings in scientific language would be insufferable. If God means anything in our daily lives, I do not think we should feel any disloyalty to truth in speaking and thinking of Him unscientifically, any more than in speaking and thinking unscientifically of our human companions.”¹

Buchman called this inner voice the voice of God. This is how he describes his own experience of listening. “I give my mind to disciplined direction. I find that God’s thoughts can become my thoughts. Direct messages come from the mind of God to the mind of man—definite, direct, decisive. God speaks.

“Radio has given us a counterpart. Whenever we see that instrument we know that if we tune in we shall find a response. But many who ought to know better, still fail to listen. They must follow their egocentric way still further, continue to talk, talk, talk, rather than learn the great compelling truth, the great symphony that comes to us when we listen.”²

I had the privilege of working with Dr Buchman from 1942 until his death in 1961.

He began his life in the ultra-conservative Pennsylvania farming countryside on 4 June, 1878. He broke with a life of privilege to work with the underprivileged children of Philadelphia. He soon learned that the more material benefits you give people, the more they want and the less they do for themselves. He realized a way had to be found to develop new qualities in men. He discovered a key—if you want to change

1 *New Pathways in Science*, Arthur Eddington, Macmillan (1935), p. 317.

2 *Remaking the World*, by Dr Frank N. D. Buchman, Blandford Press (1961), p. 72.

the other person or a situation, the best place to begin is with yourself.

Buchman worked to a strategy. "Always carry in your mind a plan for the reconstruction of your nation," he said. And plans for him were always centred on people, never just on ideas.

From America he went to India, China, Japan, Korea, Canada, Mexico, Brazil, Peru, Thailand, Indonesia, Burma, The Philippines, Europe—East and West, Africa—North and South, the Mediterranean countries, Australia and New Zealand. He sought the men and women of every race, class and condition who, with relentless energy, would battle for change in man and society. His concern was for everybody, great and small, rich and poor, educated and illiterate, young and old. He asked no one to fight harder, more passionately, more responsible for new men and new nations and a new world than he did himself.

He would give his idea through a book or magazine to every steward in the dining-car, and the cooks as well. To the engineer of the train with a word of thanks, to the hotel porter and the manager. Dr Alex Fraser, the educator who built Trinity College in Ceylon and Achimota College in Ghana, told me that he considered Buchman the greatest educator of our age because he looked upon every person he met as a potential saviour of his country.

Recently in 1966 in Bombay, I met a room-service waiter in a hotel. He told of serving Buchman in Colombo in 1952. He said, "I've had my troubles, but Dr Buchman gave me peace in my heart and showed me how to get daily direction for my life."

I first met Buchman in Cleveland during the war. At that time I was on the medical staff of the Henry Ford Hospital in

Detroit. I had some faith, I knew how to listen. But I had no strategy. That encounter changed the course of my life.

Buchman said to me, "America, because of her industrial strength, will likely be on the side that dictates the terms of peace. But unless America changes she will lose the peace." "Young man," he added, "what this nation needs is not just one more good doctor. It needs Moral Re-Armament. It needs the answer to materialism."

Till then my aim was no greater than my career. He was offering me a greater goal. Could there be a way in which my work and life as a doctor could serve this master purpose? Through listening I found direction. One of the first thoughts I had was to give as much attention to the patient as to his disease. That transformed my approach and attitude to people. Some of my colleagues, including non-medical staff, began to change.

There was Harold — a brilliant research man and surgeon. But he had such difficulties in staff relationships that the day came when he decided to take a post in another hospital. Here again he ran into similar difficulties. Harold had his ideas on what was good and efficient. He was intolerant of men and practices which did not harmonize with his convictions. One day he came to me with his problem. I suggested we take time to listen. He received clear direction to put right a bitterness he held against one of his own family; to apologise to the colleagues at the hospital whom he had been up against; and to invite them to his home for dinner. Finally, his conviction was to concentrate more on the quality of his research and less on its quantity. His life was transformed. So much so that when a new medical school was being staffed he was asked to head up the surgical division, a post he holds today with distinction.

It was two years after my first encounter with him that I met Buchman again. I spent a weekend with him and his friends near Washington. Before taking the train to Detroit I went to thank him for his hospitality.

He enquired, "Where are you going?"

"Back to Detroit," I said.

"Have you sought guidance about it?"

"It's no problem. I have to report back to the hospital first thing tomorrow morning."

"We might listen together."

I thought, "When the Army calls you, you will drop everything and serve. This battle Buchman is putting up for the world is just as essential for our future as is the war of arms. Those who see it must act."

"What came to you?" Buchman asked.

I replied, "The best thing I can do for the country at this point is to carry this battle for America with you."

"That's right," he said, "it came to me—stay, stay, stay,—three times underlined!"

Soon afterwards I resigned from the hospital and worked with Buchman for the next nineteen years of his life.

I was unforgettably impressed by his courage and by his utter conviction and confidence in the reality and accuracy of the information that comes when we honestly and selflessly listen.

His concern for my development never wavered or abated. "A fine fellow worthy of much improvement," he once said to me. And he went all out for that improvement. It was not always comfortable. He was intolerant of the second-best, the shoddy, the soft, the sentimental and the selfish. He seemed to work on the basis of expecting no sleep or rest, so that any you did get came as a gift. "When I go on vacation," he once

explained, "it is a change of location, not a change of occupation."

Buchman was not given to pious preachments. He understood people. He accepted responsibility for whatever country he was in. He believed every man and his family had a legitimate part in building a better world. I once went with him to Florida to see three of his colleagues graduate from officers' training school. He had been seriously ill and was still not well. A reporter called him on the telephone. I took the message. "Tell him I am not giving any interview to the press today," said Buchman.

I repeated this to the reporter. He was a professional at his job. I was being trained in mine. He went from question to question and soon had me talking freely. I put the 'phone down. There was silence for several minutes. Then Buchman said quietly, "Paul, what you need is an experience of the Cross."

I was baffled. I could see no connection between a telephone call and the Cross. Gradually a corner of the curtain was lifted on his meaning. This much I could see. My fear of what an unknown reporter might think of me if I refused to answer his questions kept me from being firm and straight. It illumined my need. If I was like that with people I did not know, it must be characteristic of my relationship with those I did know, particularly those from whom I wanted credit, appreciation and affection.

I realized my whole inner life needed to be reconstructed—my aims and motives—my basic indifference to human need. I was totally inadequate, ill-prepared and ill-suited for the task I had taken up. I was still out for number one. I knew the change I needed could not be produced by self-effort. This nature of mine was built into the cells and tissues of my body. My materialism came to me with my chromosomes.

Enthusiasm for an idea had taken me a long way, but, like patriotism, it is not enough. Emphasis on my good qualities and generous encouragement was like air in a tyre. The ride was smoothed out till the sharp spikes of my own nature punctured the casing and then there was a jolting let-down. What I needed was not hot air to hold me up but a buzzsaw to cut to the roots of my instinctive nature. The big "I" at the core of my life needed to be spiked.

There came a time when I felt I could continue with Buchman no longer. He was insistent that I live like a new man in attitude and work. But I knew that I could not do it. At this moment a friend turned the key with one question, "What do you want for yourself?"

As I became honest with myself the answer was clear. I wanted credit, freedom from corrective, a position in the world of medicine and the advantages that go with it—money, home, acceptance by the world. I wanted to belong to myself and live the way I wished. I realized I would be like that whether I worked with Buchman or not. I decided to stay. I experienced no surge of emotion.

It was a cool-headed commitment for life. There was given an inner calm and certainty which has often been invaded but never dispelled.

The dynamic of my evolution is the Cross of Christ. It unravels for me the nature of man, the nature of God, and why history is as it is. A father who cares enough to develop his children in the exercise of freedom and responsibility makes right and wrong, wisdom and unwisdom as clear to them as he can. Then he gives his children freedom to choose. There is no pain like the pain of parents who love their children, who know what the consequences of their wrong choices will be, but who realize the child must be free to choose if he is to

grow in freedom and dignity. Some parents refuse this pain and retain a tight tyranny over their children until their sullenness explodes in hate. Others, fearing the child's reactions, never cut through its selfish will by fighting for what is right. The Cross dramatises for all humanity the pain of a Father who dies to His control and leaves His children free to make the wrong choice if they must; but who never withdraws His care and who never fears to cross their will with the truth. But the Cross means more than that to me.

Speaking of how the Cross became real to him in his own experience, Buchman once said: "The Cross is not a real Cross if it is just something on a hill two thousand years ago. It is an awful and devastating contact with the holiness of God which breaks but remakes, which condemns but cures, which shatters but makes whole, which is the end but also the beginning, and which leads to the death of self and to the newness and power of the resurrection life of Jesus Christ."

Buchman dealt stringently and faithfully with all who would come within his range. "I have to be willing to risk my relationship with everyone twenty-four hours a day," he once remarked. His battle was too uncomfortable for some and they avoided him. Others tried to buy him off. One famous American offered him a fortune if he would head up a missionary organization with offices in New York. The offer came at a time when Buchman had relatively few associates and no resources. He turned the offer down without hesitation. The would-be patron was trying to pay Buchman to do for the world what he himself should be doing.

Buchman never sought position or security for himself or to raise patrons. He demanded what Lenin is alleged to have asked of his followers in Zürich, "Gentlemen, I do not ask for your weekends. I ask for your life." Buchman sought total,

permanent commitment. He was not interested in building a following but in building men. He did not ask for helpers. He asked for revolutionaries.

Peter Howard, a professional Fleet Street journalist, responded to Buchman's bid for humanity. Buchman forged him into a world revolutionary. The story of the evolution of Howard is an epic which he tells himself in his own words.¹

Howard advanced the battle across continents with ability and passion. At Dartmouth College in 1964 he spoke of his commitment:

"My interest is revolution. It is a revolution involving not just the West but the world, and everybody in it. It will not be accomplished by moral platitudes, which are scattered so lavishly at election time in my country, and which seem to be unable to waken good men from selfish complacency or to send bad men to sleep. It will not be accomplished by atomic force which, if it spreads and is unleashed, must destroy civilization as we know it on this planet. It will be accomplished neither by hot air nor cold steel but by an explosion, a thunderstorm of the human heart, created by men and women who realize that the modernisation of man is the greatest task of our times, and that we can no longer live safe and free when we allow prehistoric emotions of hate, fear and greed to divide us, that the alchemy of science, political and otherwise, cannot create golden conduct out of leaden instinct. In other words, the world will be modernised and rebuilt by those willing to match this revolutionary age by a revolution in their own aims and motives, a revolutionary involvement in society larger than personal and national wealth, power and comfort, a revolutionary commitment to change the direction of history."

1 *Frank Buchman's Secret*, Peter Howard, Heinemann (1961), pp.88-97.

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In the last year of Buchman's life, Peter Howard and I directed the opening session of a conference in Caux, Switzerland. I did not feel I should preside that morning and said so. Howard, who had just arrived the evening before, asked me to do it. In the event, the session fell far short of what it should have been. We conferred with Buchman afterwards. He turned to Howard and said, "You give Paul too much rope." I was still seeking to promote myself as much as the welfare of others in my relationships and work. Such a man needs to be reined in till his eyes are opened and he changes. Through ambition I had gone against my own inner conviction.

Buchman knew full well that men needed to be held constantly to selfless battle. He held Howard to it and Howard held me to it. His last letter to me was written on 23 February, 1965, from Lima, Peru, two days before he died.

In it he asked, "What is it, Paul, that so often makes you get so high? Is it some small compromise about which you have not been honest? Or is it that you do not realise the way ambition in its drive and falseness takes you over when you leave the Cross? Do think about it because the chance we have is so great and our humble unanimity is the key. P.S. Is it just rivalry with me that you have never faced? If so, forgive me if in any way I have made it harder for you. It's the very last thing I wish to do."

This word, which reached me after his death, was a shock. Sudden strong light blinds and pains for a time. Then you see things you did not see before. There had been rivalry in me—till then dismissed as most unlikely, if not impossible! But deeper than that was the selfishness which I never allowed God to touch. Howard's word was as rich a gift of insight on motives as one man could give another. His truth shattered at its foundation my ambition for self-glory. This degree of

honesty, given and taken in the comradeship of battle, is essential for the evolutionary process to proceed.

Frank Buchman's concern was that nations should find this quality of responsible leadership. "What is so hard to find," he once said, "is the leadership, the universal kind of man, that really meets people's deepest needs. This is such a difficult lesson to learn, each thinking the other fellow better than himself. People are so filled up with their own importance that there isn't room for much more.

"We need a new altitude of living. Something above what we have seen as yet. A whole new order of statesmanship is required. Cabinet Ministers to rule well must change people."¹

Our change demands that we break with selfish and corrupt policies, personal and national. It demands that when we are swept along by a "with it" mentality, by the lure of licence and the love of the world's honours, position and wealth, we scan the horizons of life for a worthier object of devotion. It is then we may become conscious of the need for a revolutionary life which demands discipline, strategy and often the courage to go it alone—a life which goes deep enough to meet the needs of modern man. Buchman foresaw the birth of a world philosophy through the cumulative effect of millions of people listening. For the still small voice within every man can be heard by the men of the Kremlin, the men in Peking, the men in Washington, by the millions of every continent—leaders and led—who seek a way forward for humanity.

The people whom Buchman changed and trained on every continent withstood the shocks of war, the down-drag of our decadent materialism, nihilism, Communism and Fascism. This growing force is at work with a strategy. God is being given

1 *Remaking the World*, Dr Frank N. D. Buchman, Blandford Press (1961), p. 190.

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the leadership not in words and hopes but in homes and workshops, farms, offices and schoolrooms, boardrooms and cabinet rooms.

Only this creation of a new man at the heart of an ideological programme for humanity goes far enough to harness the power of America and the passion of Communism. It will take new men to create peace and to execute true judgment on the earth, to show mercy and compassion every man to his brother, to end the oppression of the weak and the poor, to build men and nations who imagine no evil in their hearts against their neighbours. People who make the remaking of men the issue of our time will build a new way for man on earth.

Christ, who demonstrated the possibilities of our evolution, laid down two rules: to love God with all our heart, mind and strength, and to love our neighbours as ourselves. In terms of national life these are less principles of a religion than hard political and economic sense. For we are ruled by whom or what we love the most. We have to choose between God or man. As long as we choose the latter divisions and war, crisis and corruption, will characterise our society. When we choose to obey God we change. Moral recovery produces economic recovery. For there is enough in the world for our need, but not for our greed. We meet need when we cure greed.

Evolution has no hands, it cannot grasp us by the throat and stifle our strength and shape our destiny. It is the product of our choices. There is suffering, loss of liberty and exploitation throughout history because men choose to live for themselves and themselves alone. Human misery does not come by the will of Heaven but by the self-will of man. There is a record of progress in history towards liberty and integrity because men at times have chosen the evolutionary course. In terms of our evolution, we are not doing anything unless we are

changing men. Whatever else we aim at—treaties of peace, non-proliferation pacts, foreign aid, economic schemes—we are dealing only with symptoms, not with the causes of what is wrong.

The rebirth of men needs to become as normal an experience in the world as physical birth.

The man who would change others must live the life he wants others to live.

He must accept people and the nation as they are, have a vision for what they can become and commit himself to work and serve to see that that vision is realized.

He must hold people and nations to their responsibility for their present condition. He must never allow them to blame the past, or society, or the opposition. He must encourage them to put right from their side every relationship and practice that falls short of absolute honesty, purity, unselfishness and love. Absolute standards are not too high, our living is too low.

Always, there is adequate, accurate, definite information available for those who know they do not know, if they will listen. This is an experiment which any man can test at any time in the laboratory of his own life, family and work.

The answer to humanity's needs is not in the philosophy, political alliances or strength of any of the great powers. It is in a God-centred universal ideology which has the power to recast the character and goal of friend and foe. The salvation of our nations is in a radical world-wide shift in human nature. It is in leaders and led who can say to the world: "We are not out for ourselves. We are out to revolutionize the human condition. Our goal is not our security, comfort and success, but to change men and meet the needs of humanity world-wide. We seek not to love an idealized notion of our country, but to love our countrymen, all of them, as they are, and to

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fight for them as they are meant to be. And by God's grace we will love your people no less and will spend our strength, mind and heart for them and with them to restore God to leadership in the nations."

God is not dead. If you think He is, you will not expect to hear anything when you listen. If He is a reality, there will be a revolution in you of faith and strategy, love and sanity. To listen and obey humbly is the most intelligent use of our lives. A new type of family life, a new type of industrial, social and political life can be ours. A new growth in freedom, righteousness, judgement and equity for the millions of the earth can be the heritage of our children.

When we turn to the right hand and when we turn to the left our ears can catch, if we listen, a word behind us saying, "This is the way, walk ye in it."