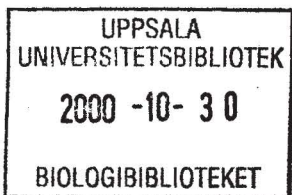


NEW BOTTLES FOR NEW WINE

ESSAYS BY

JULIAN HUXLEY

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PREFACE

IF asked to name the most remarkable developments of the present century, I suppose that most people would say the automobile and the aeroplane, or the cinema, the radio and TV, or the release of atomic energy, or perhaps penicillin and the antibiotics. My answer would be something quite different—man's unveiling of the face and figure of the reality of which he forms a part, the first picture of human destiny in its true outlines.

This new vision is based upon the enlargement of knowledge, not only or even mainly (as laymen and I fear also many scientists seem to think) in the natural sciences, but equally in the social sciences and the humanities.

During my lifetime, I have seen its gradual emergence, piece by piece. There was the discovery that atoms are not the ultimate units of matter, leading on to a coherent and comprehensive theory, first of matter, and then, through radiation studies, quantum theory and atomic physics, of matter and energy together; and the discoveries of physiology and medical science—hormones and vitamins, chemotherapy and antibiotics, the mechanism of nervous action and of muscular contraction, and many others—leading to a coherent and comprehensive picture of the working of the body in health and disease.

There was the rediscovery of Mendelism, leading on to a complete and comprehensive theory, first of heredity and then of organic evolution; and the discoveries of psychology, human and comparative—repression and the Unconscious, the measurement of intelligence and temperament, conditioned reflexes and Gestalt perception, the language of bees, the homing of birds and the behaviour of apes—leading towards a comprehensive picture of the evolution, the individual development and the working of mind.

There was the discovery of unsuspected ancient civilizations, like those of Crete and the Indus Valley, and the general pushing back of history until it met and fused with the flood of new knowledge pouring in from prehistory, archaeology, and palaeontology, so leading to a coherent

view of human development as a whole; and also the rise of a more scientific and more universal history with its specialized subdivisions—social and economic history, art history, history of science, history of religions, and the rest—leading towards a comprehensive picture of civilized man's social and cultural evolution.

There have been the discoveries of exploration—on our earth, the attainment of the Poles, the ascent of Everest, the revelations of the bathysphere and the aqualung; and beyond it, the astronomers' astonishing exploration of space and its galaxies—leading to a more complete knowledge of our planet, and to a new and awe-inspiring picture of its place in the cosmos.

There have been all the applications of science, leading to a new and more comprehensive view of man's possible control of nature. But then there was the rediscovery of the depths and horrors of human behaviour, as revealed by Nazi extermination camps, Communist purges, Japanese treatment of captives, leading to a sobering realization that man's control over nature applies as yet only to external nature: the formidable conquest of his own nature remains to be achieved.

Finally, there has been the amassing of facts about the world's resources and their consumption, and about human numbers and their rate of increase, leading to another sobering realization—that resources are limited, and that population must be limited if man is not to turn into a cancer of the planet.

From these bits and pieces of new knowledge, new realizations and new understandings, man is capable of forming a new picture of himself, of his place in nature, his relations with the rest of the universe, his role in the universal cosmic process—in other words, his destiny; and on that, in turn, building new and more adequate beliefs.

During the post-war decade, I have found myself impelled to explore this formidable field, now from one angle, now from another. The present volume consists mainly of a selection from this series of tentative explorations. I am the first to acknowledge the gaps and inadequacies which they represent, but yet feel some assurance that my efforts have led me in the main in the right direction, and indicated some useful patterns of thought and belief.

TRANSHUMANISM

As a result of a thousand million years of evolution, the universe is becoming conscious of itself, able to understand something of its past history and its possible future. This cosmic self-awareness is being realized in one tiny fragment of the universe—in a few of us human beings. Perhaps it has been realized elsewhere too, through the evolution of conscious living creatures on the planets of other stars. But on this our planet, it has never happened before.

Evolution on this planet is a history of the realization of ever new possibilities by the stuff of which earth (and the rest of the universe) is made—life; strength, speed and awareness; the flight of birds and the social politics of bees and ants; the emergence of mind, long before man was ever dreamt of, with the production of colour, beauty, communication, maternal care, and the beginnings of intelligence and insight. And finally, during the last few ticks of the cosmic clock, something wholly new and revolutionary, human beings with their capacities for conceptual thought and language, for self-conscious awareness and purpose, for accumulating and pooling conscious experience. For do not let us forget that the human species is as radically different from any of the microscopic single-celled animals that lived a thousand million years ago as they were from a fragment of stone or metal.

The new understanding of the universe has come about through the new knowledge amassed in the last hundred years—by psychologists, biologists, and other scientists, by archaeologists, anthropologists, and historians. It has defined man's responsibility and destiny—to be an agent for the rest of the world in the job of realizing its inherent potentialities as fully as possible.

It is as if man had been suddenly appointed managing director of the biggest business of all, the business of evolution—appointed without being asked if he wanted it, and without proper warning and preparation. What is more, he

can't refuse the job. Whether he wants to or not, whether he is conscious of what he is doing or not, he *is* in point of fact determining the future direction of evolution on this earth. That is his inescapable destiny, and the sooner he realizes it and starts believing in it, the better for all concerned.

What the job really boils down to is this—the fullest realization of man's possibilities, whether by the individual, by the community, or by the species in its processional adventure along the corridors of time. Every man-jack of us begins as a mere speck of potentiality, a spherical and microscopic egg-cell. During the nine months before birth, this automatically unfolds into a truly miraculous range of organization: after birth, in addition to continuing automatic growth and development, the individual begins to realize his mental possibilities—by building up a personality, by developing special talents, by acquiring knowledge and skills of various kinds, by playing his part in keeping society going. This post-natal process is not an automatic or a predetermined one. It may proceed in very different ways according to circumstances and according to the individual's own efforts. The degree to which capacities are realized can be more or less complete. The end-result can be satisfactory or very much the reverse: in particular, the personality may grievously fail in attaining any real wholeness. One thing is certain, that the well-developed, well-integrated personality is the highest product of evolution, the fullest realization we know of in the universe.

The first thing that the human species has to do to prepare itself for the cosmic office to which it finds itself appointed is to explore human nature, to find out what are the possibilities open to it (including, of course, its limitations, whether inherent or imposed by the facts of external nature). We have pretty well finished the geographical exploration of the earth; we have pushed the scientific exploration of nature, both lifeless and living, to a point at which its main outlines have become clear; but the exploration of human nature and its possibilities has scarcely begun. A vast New World of uncharted possibilities awaits its Columbus.

The great men of the past have given us glimpses of what is possible in the way of personality, of intellectual under-

standing, of spiritual achievement, of artistic creation. But these are scarcely more than Pisgah glimpses. We need to explore and map the whole realm of human possibility, as the realm of physical geography has been explored and mapped. How to create new possibilities for ordinary living? What can be done to bring out the latent capacities of the ordinary man and woman for understanding and enjoyment; to teach people the techniques of achieving spiritual experience (after all, one can acquire the technique of dancing or tennis, so why not of mystical ecstasy or spiritual peace?); to develop native talent and intelligence in the growing child, instead of frustrating or distorting them? Already we know that painting and thinking, music and mathematics, acting and science can come to mean something very real to quite ordinary average boys and girls—provided only that the right methods are adopted for bringing out the children's possibilities. We are beginning to realize that even the most fortunate people are living far below capacity, and that most human beings develop not more than a small fraction of their potential mental and spiritual efficiency. The human race, in fact, is surrounded by a large area of unrealized possibilities, a challenge to the spirit of exploration.

The scientific and technical explorations have given the Common Man all over the world a notion of physical possibilities. Thanks to science, the under-privileged are coming to believe that no one need be underfed or chronically diseased, or deprived of the benefits of its technical and practical applications.

The world's unrest is largely due to this new belief. People are determined not to put up with a subnormal standard of physical health and material living now that science has revealed the possibility of raising it. The unrest will produce some unpleasant consequences before it is dissipated; but it is in essence a beneficent unrest, a dynamic force which will not be stilled until it has laid the physiological foundations of human destiny.

Once we have explored the possibilities open to consciousness and personality, and the knowledge of them has become common property, a new source of unrest will have emerged. People will realize and believe that if proper measures are

taken, no one need be starved of true satisfaction, or condemned to sub-standard fulfilment. This process too will begin by being unpleasant, and end by being beneficent. It will begin by destroying the ideas and the institutions that stand in the way of our realizing our possibilities (or even deny that the possibilities are there to be realized), and will go on by at least making a start with the actual construction of true human destiny.

Up till now human life has generally been, as Hobbes described it, "nasty, brutish and short"; the great majority of human beings (if they have not already died young) have been afflicted with misery in one form or another—poverty, disease, ill-health, over-work, cruelty, or oppression. They have attempted to lighten their misery by means of their hopes and their ideals. The trouble has been that the hopes have generally been unjustified, the ideals have generally failed to correspond with reality.

The zestful but scientific exploration of possibilities and of the techniques for realizing them will make our hopes rational, and will set our ideals within the framework of reality, by showing how much of them are indeed realizable.

Already, we can justifiably hold the belief that these lands of possibility exist, and that the present limitations and miserable frustrations of our existence could be in large measure surmounted. We are already justified in the conviction that human life as we know it in history is a wretched makeshift, rooted in ignorance; and that it could be transcended by a state of existence based on the illumination of knowledge and comprehension, just as our modern control of physical nature based on science transcends the tentative fumbblings of our ancestors, that were rooted in superstition and professional secrecy.

To do this, we must study the possibilities of creating a more favourable social environment, as we have already done in large measure with our physical environment. We shall start from new premisses. For instance, that beauty (something to enjoy and something to be proud of) is indispensable, and therefore that ugly or depressing towns are immoral; that quality of people, not mere quantity, is what we must aim at, and therefore that a concerted policy is required to

prevent the present flood of population-increase from wrecking all our hopes for a better world; that true understanding and enjoyment are ends in themselves, as well as tools for or relaxations from a job, and that therefore we must explore and make fully available the techniques of education and self-education; that the most ultimate satisfaction comes from a depth and wholeness of the inner life, and therefore that we must explore and make fully available the techniques of spiritual development; above all, that there are two complementary parts of our cosmic duty—one to ourselves, to be fulfilled in the realization and enjoyment of our capacities, the other to others, to be fulfilled in service to the community and in promoting the welfare of the generations to come and the advancement of our species as a whole.

The human species can, if it wishes, transcend itself—not just sporadically, an individual here in one way, an individual there in another way, but in its entirety, as humanity. We need a name for this new belief. Perhaps *transhumanism* will serve: man remaining man, but transcending himself, by realizing new possibilities of and for his human nature.

“I believe in transhumanism”: once there are enough people who can truly say that, the human species will be on the threshold of a new kind of existence, as different from ours as ours is from that of Peking man. It will at last be consciously fulfilling its real destiny.