

Whitehead *speaks*

Few men in the twentieth century rank alongside the towering figure of Alfred North Whitehead, philosopher and mathematician. As a philosopher he turned his back on all unrealistic and idealistic verbalizing and as a mathematician he avoided putting his full trust in all that could be observed and measured. His search for truth was deep and profound and those who follow his lead must be prepared to pioneer on the frontiers of the mind.

Born on February 15, 1861 at Ramsgate, England, he was educated at Cambridge University. He taught there until 1910 when he moved to the University of London. In 1924 he went to Harvard University and remained there until his retirement. He died in 1947.

To him philosophy, science and religion had to start "from some section of our experience." His philosophy of "organism" rejects the cold reason of Kant, the utilitarianism of Mill, and the extrinsic method of science. His approach was a synthesis of the intrinsic and extrinsic experiences of man. Permanence and passage became two aspects of one reality. He saw the method of science and the creative qualities of religion and art as parts of a greater whole. He was aware of the pull of the emotional tides of life, which are helping to produce new vitality in science.

Through contact with his students and through such widely read books as *Adventures in Ideas*, *The Aims of Education*, *Religion in the Making*, and *Science and the Modern World* he influenced and is still influencing many thinking persons.

ON RELIGION . . .

"Religion insists that the world is a mutually adjusted disposition of things, issuing in value for its own sake. This is the very point that science is always forgetting."

"Religion is force of belief cleansing the inward parts. For this reason the primary religious virtue is sincerity, a penetrating sincerity."

"The great social ideal for religion is that it should be the common basis for the unity of civilization. In that way it justifies its insight beyond the transient clash of brutal force."

"When religion ceases to seek for penetration, for clarity, it is sinking back into its lower form."

ON GOD . . .

"God is that function in the world by reason of which our purposes are directed to ends which in our own consciousness are impartial as to our own interests. He is that element in life in virtue of which judgment stretches beyond facts of existence to values of existence. He is that element in virtue of which our purposes extend beyond values for ourselves to values for others. He is that element in virtue of which the attainment of such a value for others transforms itself into value for ourselves."

"He is the binding element in the world. The consciousness which is individual in us, is universal in him; the love which is partial in us is all-embracing in him. Apart from him there could be no world."

"He is complete in the sense that his vision determines every possibility of value."

ON CHRIST . . .

"The life of Christ is not an exhibition of over-ruling power. Its glory is for those who can discern it, and not for the world. Its power lies in its absence of force. It has the decisiveness of a supreme ideal, and that is why the history of the world divides at this point of time."

"The reported sayings of Christ are not formalized thought. They are descriptions of direct insight."

ON THE CHURCH AND DOGMAS . . .

"Religions commit suicide when they find their inspiration in their dogmas. The inspiration of religion lies in the history of religion. By this I mean that it is to be found in the primary expressions of the intuitions of the finest types of religious lives."

"A system of dogmas may be the ark within which the Church floats safely down the flood-tide of history. But the Church will perish unless it opens its window and lets out the dove to search for an olive branch. Sometimes even it will do well to disembark on Mount Ararat and build a new altar to the divine Spirit."

"The self-sufficient pedantry of learning and the confidence of ignorant zealots have combined to shut up each religion in its own forms of thought. Instead of looking to each other for deeper meanings, they have remained self-satisfied and unfertilized. Both have suffered from the rise of the third tradition, which is science, because neither of them had retained the requisite flexibility of adaptation. Thus the real practical problems of religion have never been adequately studied in the only way in which such problems can be studied, namely, in the school of experience."

ON CIVILIZATION . . .

"A society is to be termed civilized whose members participate in the five qualities—Truth, Beauty, Adventure, Art, Peace."

"The vigor of civilized societies is preserved by the widespread sense that high aims are worth while. Vigorous societies harbor a certain extravagance of objectives, so that men wander beyond the safe provision of personal gratifications."

"In a live civilization there is always an element of unrest."

"Without adventure civilization is in full decay."

"Adventure rarely reaches its predetermined end. Columbus never reached China. But he discovered America."

"The universe shows us two aspects: on one side it is physically wasting, on the other side it is spiritually ascending."

ON TRUTH . . .

"Progress in truth—truth of science and truth of religion—is mainly a progress in the framing of concepts, in discarding artificial abstractions or partial metaphors, and in evolving notions which strike more deeply into the root of reality."

". . . all understanding of human life—is that no static maintenance of perfection is possible."

"Religion starts from the generalization of final truths first perceived as exemplified in particular instances. These truths are amplified into a coherent system and applied to the interpretation of life. They stand or fall—like other truths—by their success in this interpretation."

"Propositions, like everything else except experience in its own immediacy, only exist as entertained in experience."

ON SCIENCE AND THE MODERN WORLD . . .

"All the world over and at all times there have been practical men, absorbed in 'irreducible and stubborn facts', all the world over and at all times there have been men of philosophic temperament who have been absorbed in the weaving of general principles. It is this union of passionate interest in the detailed facts with equal devotion to abstract generalization which forms the novelty in our present society."

"If science is not to degenerate into a medley of ad hoc hypothesis, it must become philosophical and must enter upon a thorough criticism of its own foundations."

"The field is now open for the introduction of some new doctrine of organism which may take the place of materialism with which, since the seventeenth century, science has saddled philosophy. It must be remembered that the physicist's energy is obviously an abstraction."

"Science is taking on a new aspect which is neither purely physical, or purely biological. It is becoming the study of organisms. Biology is the study of the larger organisms; whereas physics is the study of the smaller organisms."

"My theory involves the entire abandonment of the notion that simple locations is the primary way in which things are involved in space-time. In a certain sense, everything is everywhere at all times. For every location involves an aspect of itself in every other location. Thus every spatio-temporal standpoint mirrors the world."

"When we consider what religion is for mankind, and what science is, it is no exaggeration to say that the future course of history depends upon the decision of this generation as to the relations between them."

ON EDUCATION . . .

"Education is the acquisition of the art of the utilization of knowledge. This is an art very difficult to impart."

"What we should aim at producing is men who possess both culture and expert knowledge in some special direction. Their expert knowledge will give them the ground to start from, and their culture will lead them as deep as philosophy and as high as art."

"Every form of education should give the pupil a technique, a science, an assortment of general ideas, and aesthetic appreciation, and each of these sides of his training should be illuminated by the others. Lack of time, even for the most favored pupil, makes it impossible to develop fully each curriculum. Always there must be a dominant emphasis."

"From the very beginning of his education, the child should experience the joy of discovery."

"The problem of a curriculum is not so much the succession of subjects; for all subjects should in essence be begun with the dawn of mentality; the truly important order is the order of quality which the educational procedure should assume."

"We enunciate two educational commandments, 'Do not teach too many subjects' and again, 'What you teach, teach thoroughly'."

". . . the race which does not value trained intelligence is doomed."

"Culture is activity of thought, and receptiveness to beauty and humane feeling. Scraps of information have nothing to do with it. A merely well-informed man is the most useless bore on God's earth. What we should aim at producing is men who possess both culture and expert knowledge in some special direction."

ON RELIGIOUS EDUCATION . . .

"The essence of education is that it be religious . . . a religious education is an education which inculcates duty and reverence. Duty arises from our potential control over the course of events. Where attainable knowledge could have changed the issue, ignorance has the guilt of vice. And the foundation of reverence is this perception, that the present holds within itself the complete sum total of existence, backwards and forwards, that whole amplitude of time, which is eternity."

ON CREATIVE EXPRESSION . . .

"Expression is the one fundamental sacrament. It is the outward and visible sign of an inward and spiritual grace."

"The history of culture shows that originality of expression is not a process of continuous development. There are antecedent periods of slow evolution."

"The creative process is thus to be discerned in that transition by which one occasion, already actual, enters into the birth of another instance of experienced value."

"The whole world conspires to produce a new creation."

"Both Shelley and Wordsworth emphatically bear witness that nature cannot be divorced from its aesthetic values, and that these values arise from the cumulation, in some sense, of the brooding presence of the whole on its various parts. Thus we gain from the poets the doctrine that a philosophy of nature must concern itself at least with these six notions: change, value, eternal objects, endurance, organism, interfusion."

ON THE FUTURE . . .

"Cut away the future and the present collapses, emptied of its proper content. Immediate existence requires the insertion of the future in the crannies of the present."

"Mankind is now in one of its rare moods of shifting its outlook. The mere compulsion of tradition has lost its force. It is our business . . . to re-create and re-enact a vision of the world, including those elements of reverence and order without which society lapses into riot, and penetrated through and through with unflinching rationality. Such a vision is the knowledge which Plato identified with virtue. Epochs for which, within the limits of their development, this vision has been widespread are the epochs unfading in the memory of mankind."

"In the past human life was lived in a bullock cart; in the future it will be lived in an aeroplane; and the change of speed amounts to a difference of quality."

"I hazard the prophecy that that religion will conquer which can render clear to popular understanding some eternal greatness incarnate in the passage of temporal fact."

Grateful acknowledgment is made to The Macmillan Company for permission to use the quotations in this leaflet from *Adventures in Ideas*, *The Aims of Education*, *Religion in the Making*, and *Science and the Modern World*.

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