

INDEXED
ml

MENTAL HEALTH

Published by the

CENTRAL ASSOCIATION FOR MENTAL WELFARE, 24 Buckingham Palace Road, S.W.1.

CHILD GUIDANCE COUNCIL, 32 Queen Square, Bath. (Emergency Address.)

NATIONAL COUNCIL FOR MENTAL HYGIENE, 76/77 Chandos House, Palmer Street, S.W.1.

EDITORIAL BOARD:

MISS EVELYN FOX, C.B.E. (Central Association for Mental Welfare).

R. G. GORDON, M.D., D.Sc., F.R.C.P.Ed. (Child Guidance Council).

DORIS M. ODLUM, M.A., M.R.C.S., L.R.C.P., D.P.M. (National Council for Mental Hygiene).

The Editorial Board does not hold itself responsible for the opinions of contributors.

Vol. III. No 2.

SUMMER 1942

Price 1/-

CONTENTS

THE TREND OF SCIENTIFIC THOUGHT. KENNETH WALKER, F.R.C.S.	..	..	Page 35
BEHAVIOUR IN RELATION TO WAR CONDITIONS	..	..	35
A SPECIAL SCHOOL EVACUATION UNIT. H. BARKER	..	..	37
ELECTROENCEPHALOGRAPHY IN RELATION TO BEHAVIOUR PROBLEMS	..	..	39
NEWS AND NOTES	..	..	41
BOOK REVIEWS	..	..	44

ARMY MEDICAL
AUG 25 1942
LIBRARY

The Trend of Scientific Thought

By KENNETH WALKER, F.R.C.S.

I have been asked to amplify the article entitled "The Need for a Positive Philosophy of Life", which was published in a previous number of MENTAL HEALTH. The natural sequel would be a disquisition on how to obtain one. But it is easier to know our wants than to discover how to supply them, and there is no general guide to the obtaining of a philosophy of living. The philosophy which we eventually find, if we are successful in our search, is essentially a personal philosophy. "You can no more escape your philosophy", writes McNeile Dixon in *The Human Situation*, "than you can escape your shadow, for it also is a reflection of yourself. . . . All reasoning is in a manner biased, and the bias is due to the nature, surroundings, and education of the thinker." It is impossible to formulate a philosophy which will be generally acceptable, just as it is impossible to have a single form of religion which will meet the spiritual needs of the whole of mankind. Even if its essence be the same, its

outward form must differ. All that can be done is to examine the trend of modern thought and discover the direction in which we are travelling. As I am a medical man, and as medicine is based on science, I shall try to summarize briefly the more philosophical aspects of the science of today.

We live at an extremely interesting time, not only of history, but also of human thought, a time which has the appearance of being a period of transition. The science of the nineteenth century was dominated entirely by physics, the branch which had made the furthest progress, and was frankly materialistic. It was felt that matter was simple, obvious and tangible, something that could be relied upon, and something which supplied a criterion of reality. The world of values, the world of the emotions, of art, and of religious experience was, to the scientist, imaginary, the product of subjective sensations, and a world which had no real existence. Whilst the external and real world of matter was ruled by laws,

many of which science had already discovered, the inner and subjective world of the spirit was entirely irrational. Scientists knew exactly where they stood; in all branches of science the amount of knowledge which had been attained was measured by the ability to interpret phenomena in terms of physics. Whatever conformed to the law of cause and effect was accepted as real, and whatever could not be explained in terms of mechanism was regarded as being unreal. It was believed that everything in the universe, from the movements of atoms to the actions, thoughts and hopes of mankind, was strictly determined. So confidently did the scientific world believe this that when Professor Tyndall addressed the British Association in 1874, he prophesied that one day science would be able to explain all that had happened in the world's history in terms of the "ultimately purely natural and inevitable march of evolution from the atoms of the primeval nebula to the proceedings of the British Association."

Darwin had already explained the evolution of life culminating in the appearance of man along purely mechanical lines, and had stated that all the varieties of life on the earth resulted from the operation of these mechanical forces. The automatic sifting action of natural selection upon accidental variations was responsible for the different species. To the question what caused these variations on which evolution depended, he returned no answer. Psychology was also influenced by the materialism and determinism which reigned in other departments of science. Many psychologists were dissatisfied with the methods of introspection, which had hitherto been employed, as a means of investigating psychological phenomena, and sought other methods susceptible of better control. Their efforts resulted in the founding of the school of Behaviourist psychology. This took for its physiological basis Pavlov's experimental work on reflexes. According to Pavlov all bodily movements can be interpreted as being responses to stimuli, the life of an animal being nothing but a chain of automatic or conditioned reflexes. The school of Behaviourism attempted to explain a man's psychological life along the same lines. It regarded the brain as a receiving station for a vast number of impulses reaching it from various parts of the body, and believed its responses to these to be as strictly determined as are the responses of the spinal cord. Thinking, to the Behaviourist, is really nothing but silent talking, and is associated with a number of subconscious movements, such as, contractions of the muscles of the larynx. Thinking, therefore, like all other bodily activities, is a reaction to various stimuli. This being so, the Behaviourist dispenses with the concept of mind, and regards the whole of the psychical life as being a chain of automatic and conditioned reflexes.

The analytical school of Freud, which has also exercised a profound influence on modern thought, employs as a means of investigation, the method of introspection. Its fundamental thesis is

that human behaviour and human thought is determined by the working of the subconscious mind. Although the Freudians did not, like the Behaviourists, eliminate reason, they relegated it to a subsidiary position. Its only function was to rationalize actions which had already been determined by subconscious factors. Originating as an empirical method for the treatment of certain nervous disorders, the Freudian teaching gradually developed into a system of psychology. The Freudian's outlook was deterministic although he placed his emphasis on this than did the Behaviourist. We are controlled by our subconscious mind, and if the contents of the subconscious mind were fully known all our actions, feelings and thoughts could be foretold. Professor McDougall, whose writings have also influenced present-day thought, has substituted for a tyranny of the subconscious a tyranny of the instinct. "All the complex intellectual apparatus of the most highly developed man is but the instrument by which these (instinctive) impulses seek their satisfaction."

It will be seen therefore that not only physics and biology, but also the science which dealt particularly with the study of man, psychology, were at the beginning of this century dominated by materialism and determinism. According to these teachings everything in the universe from the falling of an apple to the writing of Shakespeare's *Sonnets* could be accounted for by the working of mechanical laws. Spirit and intelligence had been successfully eliminated from the universe. Suddenly, the whole elaborate structure of thought began to crumble and strange to say, it was the physicists who were responsible for this. They deliberately destroyed the foundations on which so much had been erected by declaring that they had previously been mistaken about the nature of matter. Instead of being solid and real, matter was something which was infinitely attenuated and elusive, so elusive that it could not even be visualized, but could be expressed only in mathematical formulae. They even went so far as to state that the electron behaved as though it were possessed of free will. Its behaviour could only be foretold in terms of probability. What was so worse for those who had placed so much faith on previous findings of physics was the fact that the physicists themselves were beginning to talk like idealist philosophers. They were suggesting that matter exists only in so far as the mind apprehends it, thereby implying that mind is primary in the cosmos, and matter only its projection. Professor Planck, the most brilliant of European physicists was reported to have said, when interviewed by J. W. N. Sullivan, "I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that we postulate as existing, requires consciousness."

The new discoveries of physics were not disturbing to the biologists as they might have been because they had already found that the physico-chemical mechanistic theory of life was no longer

tenable. There was in all organisms an inner drive to reach an appropriate structure which the laws of physico-chemistry could not possibly explain. This inner drive was named the "élan vital" by Bergson, and a new theory of life was elaborated in his *Creative Evolution*. The biologists, like the physicists, were beginning to use the language of idealist philosophers. The words uttered by the physiologist J. S. Haldane are very similar to those used by Planck. "The conclusion forced upon me in the course of a life devoted to natural science is that the universe as it is assumed to be in physical science is only an idealized world, while the real world is a spiritual universe in which spiritual values count for everything." (J. S. Haldane, Gifford Lectures, 1927-1928.)

A curious paradox has arisen now. Whilst the physicists, the arch-mechanists of the nineteenth century, have been turning into idealist philosophers, and the biologists have followed suit, the majority of psychologists still remain entrenched in materialism. Spiritual values have come back into the universe, but are still denied to man. According to Freud, all man's religious aspirations are a relic of childish fantasies, and of the desire for a father-figure. Freud looked forward to a future

civilization in which all religious superstitions—and he considered religion to be only superstition—would have disappeared, and science reign supreme. Freud's world-wide fame as a psychotherapist has lent a fictitious importance to his words, and many people, ignorant of the history of science and philosophy, still accept them as the verdict of science. Freud evidently did not keep in touch with the trend of modern scientific thought, for there no longer exists any incompatibility between the views of the scientist and the man of religion. That belonged to the last century.

Enough has been said to show that he who looks for a philosophy or a religion is no longer hampered by the dictates of science. When I was a boy the chief difficulties I encountered were the difficulty of reconciling what I heard in the school chapel with what I was taught in the laboratories and classrooms. Seeing that I was in difficulties, the headmaster presented me with a book which attempted, with only moderate success, to reconcile science with religion. Such a work is no longer necessary. The Scientist is now much more modest, and realizes how limited is the framework within which he works. He no longer asserts that his is the only path to truth.

Behaviour in Relation to War Conditions

A PRELIMINARY ENQUIRY

In the summer and autumn of 1939, the prophets had a great time. We learnt then what we were to expect. Our large cities would be destroyed by air bombardments. Whole sections of the population would be wiped out by poison gas, and civilization, as we knew it, was bound to disappear. Among the minor prophets were those who were able to foretell the effect of totalitarian war upon the nervous systems of both young and old, and sad and discouraging was the tale. Of course many things might have happened that did not. But as it turned out, it was not always wise to draw deductions from unfortunate instances of nervous disorders in the terminal stages of the last war and in the years that followed it. It is difficult enough to assign with accuracy the roles of cause and effect to phenomena in the lives of individuals even after close and accurate scrutiny. To attempt this with *groups* of individuals is often more difficult still.

But reasoned attempts should be made, and I have been asked to describe a small investigation carried out under the auspices of the Mental Health Emergency Committee during the latter half of 1941.

On November 7th, 1940, the Executive Committee

of the National Council for Mental Hygiene (the body that convened the Mental Health Emergency Committee and which remains one of its constituent elements), passed a resolution recommending that the Mental Health Emergency Committee (to be hereinafter termed, for short, the M.H.E.C.) should nominate a small sub-committee with a view to collecting and ultimately collating data as to child behaviour in relation to war conditions and the subsequent effect of these conditions. The M.H.E.C. accepted the proposal and in March, 1941, appointed a Sub-Committee to report on the matter.

The Sub-Committee recognized that an enquiry of this kind, to be of any value, must not only be extensive but must also be carried out in a manner that would satisfy and meet enlightened criticism. It was, moreover, unlikely that the M.H.E.C. could, unaided, carry out such an enquiry. It had already wide and extending commitments and its staff was fully occupied in attending to these. In order, however, to obtain financial and other assistance, it would be necessary to demonstrate that the results of the enquiry would justify the expenditure of time and money involved.