

The scientific method of approach to the problems of social science aims to make of social science a clearly defined, effective, vital science. This can be accomplished only by patient, painstaking research applied to clearing up, one at a time, the difficulties and complexities which confront its purpose." His ideas are directly expressed again in this passage: ". . . The conclusion from this presentation is that psychological data to be valuable to social science must not only be convincingly proven, but also presented with the methodology and technique for measurable application to the problems of sociology, economics, education, criminology, psychiatry or neurology, all of them watching with deep concern and sympathetic interest the progress of psychology in overcoming conditions characterized by Mill as a 'blot on the face of science.' "

Korzybski, Alfred. SCIENCE AND SANITY. [Lancaster, Pa.: The International Non-Aristotelian Library Publishing Co. \$7.00.]

The main conceptual groundwork for this very valuable book appeared some years ago in *Manhood of Humanity*, a study in which Korzybski outlined his conceptions of basic errors evolved in traditional modes of thinking and general cultural orientation, and of the potential advancement open to man in this respect through a radical re-education based on the full significance of the nature and function of the time-binding structure of human mentality. Korzybski described this evolutionary psychobiological accretion as the great differential marking the human organism in each aspect of its gradually built up psychophysiological structure from the forms of nervous reactivity incorporated in the lower orders of mammalian life.

This basic property of psychical life, as formulated in the findings of modern neuropsychiatry, was particularly demonstrated in his work as the dynamic intrapsychic mechanisms through which successive generations are able to utilize and build on the past achievements of cultural history, the deep continuity of which are inherent in human structural forms and preserved at mental levels in terms of dynamic symbolic representation of early evolutionary experience; the record of which included at much later stages the interrelated cultural advances through prehistory and civilization whereby man in his increasing control over instinctual demands won further mastery of his environment.

In *Science and Sanity* Korzybski continues the interpretations set forth in *Manhood of Humanity* by means of a thoroughly detailed and comprehensive investigation of the mechanism of time-binding as based on present neuropsychiatric knowledge of the nature and function of the organism as a whole, and of the content at all levels of the organism of the symbolic reactions to inner and outer events which comprise in full the adjustment of the individual to the demands of existence.

A main import of the work is the complete revaluation of linguistics in its role of constituting the external communicative phases of the

mechanisms derived from the symbolic reactivity through which were attained, from first psychobiological stages through to the special trends of present cultural integrations, the capacity for dynamic retention of past experience and the potentiality for increased dealing with the environment. The significance of language for the creative adjustment of the individual is fully presented; and is correlated with its meaning for potential orientations in social organization sufficiently progressive to utilize the full import of the nature of psychophysiological function, and the structure of environment as presently formulated in the analytic descriptions of physical science.

Korzybski's analysis of these problems shows that much individual and social maladjustment is due to the carrying over into language of ideas and interpretations based on views formulated by Aristotle two thousand years ago. These concepts of man and the natural world are here thoroughly demonstrated as having been twisted and perverted from their original bearings by centuries of ignorant and autistically oriented socio-political "thinking"; and as being at best, for present needs, totally out of conjunction with the direct implications of psychiatry and psychoanalysis as to the potentialities of human energetic development, and of modern advances in physical science through increasing power over natural forces and in further determining aspects of cosmic structure.

It is on the groundwork of these two last divisions of investigation that Korzybski presents the differences between the aristotelian and non-aristotelian systems: the one based on elementalistic terms, or premises implying a division in human function of intellect and emotions; and the other on non-elementalistic terms, or those which utilize all of the ramifications of the concept of the organism as a whole. A factor of basic importance is the problem of semantics, by which is meant all the meanings of a term comprising the pre-logical as well as the conscious logical import. Thus "psycho-logical" is presented in contradistinction to the aristotelian elementalistic term "psychological." The psycho-logical meaning includes the response and orientation to both inner and outer events which take place at "un-speakable" organismic levels, and which constitute the foundations for the chain of psychical associations culminating in the conscious meanings attached to ordinary language terms. A major part of the system rests on the fact that speech, as the end-product of a long series of symbolic psychobiological processes, preserves in its present conscious formations associational values which relate intrapsychically to primitive reactions and infantile affective trends; making for orientations which in the light of present knowledge are not only disadvantageous to the realization of individual and social potentialities, but are, in the author's view, largely responsible for the mass of present day individual and social "unsanity."

The effects of these orientations as observed in the outlook and

methodology of specific social and scientific endeavors were indicated in the general cultural and historical survey of "Manhood and Humanity," and are here comprehensively set forth in point of the implications of both the aristotelian and non-aristotelian systems. Korzybski stipulates comparative estimates of the rates of development in the natural and technological sciences, and in those pursuits dealing with ethics, political science, and socio-economic organization—the first being represented by a geometric and the second by an arithmetic progression. Approaching the problem through an analysis of the concepts involved, Korzybski described the greater speed of the first as due to the essential economy and closer adjustment to natural fact inherent in the components of mental organization through which advance in that line has been made. Progress in the social sciences is shown as constantly impeded by primitive and autistic thought modes—persistent infantile affective identifications; the historical and politically perpetuated analogy between reactivity in the animal world and the "predestined" limits of human social advancement; and the retention in language of terms preserving the affective and ideational content of outgrown racial levels. Korzybski amply proves this deep retardation to be implicit in the aristotelian system, showing in the present work how inadequate its framework is to thorough-going individual and social utilizations of the newer knowledge of the psychobiological totality of the human organism, as regards both the inner nature of its integrative function, and the potential subjective and collective development dependent on a full understanding of the nature of its relations with an environment of similarly constituted organisms, functioning like itself in conjunction with the structural implications of the external world.

It is impossible in the space of a review to indicate all the ramifications of the non-aristotelian systems as here presented, nor does the reviewer feel qualified to represent adequately the many involvements relating to special sciences. The text comprises comparative studies in the methodology of all the major technical, mathematical, physical and natural disciplines; all of which are regarded as forms of specialized human behavior evolved gradually through progressive ego perceptive adaptations, and subject always to revisions as regards the natural validity of the basically implied concepts, or new findings in either the ramifications of psychophysiological function or the structure of external matter. Korzybski has effected the groundwork of a comprehensive intellectual discipline whereby ego perceptive powers may be able to function more fully and accurately by means of a sounder and more correlated structural knowledge of both internal and external phenomena. As the id forces cripple ego function in the psychoses by setting up an inner falsification of the outside world and a delusional picture of reality in accordance with libidinal wishes, so his work shows primitive values in semantic reaction and the implication of aristotelian

concepts as curtailing accurate ego appraisal in ordinary life and in the structural foundations of the sciences.

There may be indicated here some of the fundamental concepts which form the nucleus for these representations. Following Leibnitz the aristotelian law of identity is abolished, and there is added in addition to the individuality of events the dynamic factor of change, or time. The relations between neurological processes and external phenomena comprise basically the sub-microscopical characteristics of objects, which are in dynamic change and infinite, and the organismic reactions to stimuli from them. Conscious perception deals with the grossly evident characteristics of objects, which are finite and abstracted in perception from the infinite range that is discernible only in special scientific investigation. The link between these outer dynamic series of events and the organism is the relation between their structure and the psychobiological structure of language. Perception and designation in language terms involve orders of abstraction. As there is abstracted from the sub-microscopic characteristics the consciously perceived object, so the word is the label for the amalgam of finite characteristics. The next abstraction is a statement about the label, and so on until the "un-speakable" levels of the organism are reached. Thus the "is" of identity is completely abolished, and the concept of multiordinality established, by which is meant the value of a term in relation to a number of orders of abstraction.

There are three main sections. The first is a survey of non-aristotelian structural factors as provided by the data of special sciences; the second is an introduction to general semantic and the non-aristotelian systems as such appear without relation to identity; and the third provides supplementary structural data concerning language and the characteristics of the empirical world. The basis is Count Korzybski's contributions on this and allied subjects over a number of years, correlated and worked out to a remarkable degree with the data provided by many workers in diverse fields. Each section is prefaced by quotations from special works, thus indicating at once the broad scope of the work, and its deep roots in every manifestation of present day intellectual orientations. It is a work of an inestimable and many-sided value, and one in which the neuropsychiatrist will find much to repay him for careful study. It is a hard nut to crack but there is meat in it.

Reese, Hans H., Paskind, Harry A., Sevringhaus, Elmer L.

THE 1934 YEAR BOOK OF NEUROLOGY, PSYCHIATRY AND ENDOCRINOLOGY.
[Chicago: The Year Book Publishers. \$3.00.]

For a long time this title in the Practical Medicine Year Book Series has been of great value in recapitulating the annual positions of neurology and psychiatry for the use of both the physician and student. Under the very able editorship of Drs. Peter Bassoe and Franklin G. Ebaugh the work has become a by-word for concise representation of the advances