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A THEORY OF MEANING ANALYZED

THE FOREWORD

by

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FOREWORD

The subject-matter of these papers needs no introduction to those in the fields of English education, linguistics or literary scholarship. We are writing a foreword to indicate why we deem this monograph of general importance.

It is important because the traditional system of human evaluation has broken down through inadequacy. To get out of the present impasse of bewilderment and confusion, the narrowness and inadequacy of traditional methods, we must first abandon the 'Cheshire Cat Theories of Meaning'*. You know the cat with a head and no body which kept appearing and disappearing, and which Alice found quite bewildering, even in Wonderland. Something drastic must be done about 'that cat', and the authors of the papers in this monograph have made a fine start towards building up a body for the grinning Cheshire Cat - not verbally twisting the tail of a non-existent cat.

The three authors approach the problem of 'meaning' from different, yet complementary points of view. In the title paper, Mr. Pollock emphasizes the most important point of the inadequacy of the current Richardian theory of 'meaning', with revealing documentation of his thesis. Mr. Spaulding makes the first attempt to analyze the mechanisms of that inadequacy as based on unconscious assumptions embedded in the aristotelian system and structure of language. Mr. Read's paper on lexicography combines the workable aspects of different theories of symbolism and context theories of 'meaning' with the results of modern empirical investigations. The papers elucidate some of the fundamental difficulties in building any theories of 'meaning' which would be adequate to cover the range of human significant reactions and so adequate actions.

An example may help to indicate the difference between adequate and inadequate evaluation in life-issues and problems of 'meaning' as such. '. . . watch a frightened rabbit freeze into immobility and invisibility in the middle of a field and thus escape detection and death and then watch the same rabbit freeze in the middle of the highway when he is frightened by the lights of an oncoming car. Here behavior appropriate [adequate] for one setting is carried over into a setting in which it is fatal.'¹ The 'meaning' to the rabbit may be said to be the 'same' in both 'contexts', but his survival evaluation is inadequate in the second empirical situation. In hospitals for 'mentally' ill, patients are as full of 'meanings' as anybody else, perhaps even more so, but their evaluations are inadequate for life adjustment and this is why they have to be locked up.

We find similar situations of evaluational inadequacy in the history of science. Thus, for instance, we can build the bodies and mechanisms for motor cars, airplanes, radios, etc., with the classical euclidean and newtonian assumptions. However, when it comes to run them, we find that the

*To paraphrase Doctor Preston. See George H. Preston, Psychiatry for the Curious, Farrar & Rinehart, 1940, p. 7.

¹Ibid., p. 15.

classical systems are inadequate to deal with the electricity without which we can not make them work. In life we have similar difficulties with the classical aristotelian system and its conscious and unconscious (or silent) assumptions on which present theories of 'meaning' and education have been built. The orientations which follow from these assumptions may be adequate for our 'rabbit run' of daily life, but certainly they are inadequate for proper evaluation and therefore intelligence and sanity in the work of 1942. And so it goes throughout science and life.

It is not generally realized what dangers lie in inadequate theories and resulting methods which must mislead us. Mr. Pollock has given us what we might call a 'case history' of one such instance of theoretical inadequacy, and the consequent confusions and difficulties in applications of literature to education.

Mr. Spaulding analyzes the situation by tracing the effects of the unconscious assumption of 'identity' and consequent elementalism which shapes Mr. Richards' theoretical position, in spite of his statements to the contrary. This paper is a good example for the study of some consequences of ignoring the silent assumptions underlying the structure of our language, which conditions our neuro-semantic and neuro-linguistic reactions.

* * * *

To get out of these impasses, we must eventually investigate the mechanisms of human evaluation methodologically, and so find out what we are after when we search for a theory of 'meaning'. Somehow we must begin to recognize the complexities which are imposed upon us as a symbolic class of life, and the consequences of such a living issue.

Through the ages, and now more and more, we discover the urge to find 'meanings' as a profoundly human impulse. The 'meaning of meaning', for which humans also struggle, represents actually a second order neuro-semantic mechanism for the adjustment of the organism-as-a-whole-in-its-environment.²

²Alfred Korzybski, General Semantics, Psychiatry, Psychotherapy, and Prevention, unabridged paper presented before the Annual Meeting of the American Psychiatric Association, Cincinnati, May 1940, Institute of General Semantics, Chicago. Published in abridged form, without the following quotations, in the American Journal of Psychiatry, September 1941.

'It should be noticed that in human life self-reflexiveness has even "material" implications, which introduce serious difficulties. Professor Cassius J. Keyser expresses this very aptly: "It is obvious, once the fact is pointed out, that the character of human history, the character of human conduct, and the character of all our human institutions depend both upon what man is and in equal or greater measure upon what we humans think man is." This is profoundly true.

'Professor Arthur S. Eddington describes the same problem in these words: "And yet, in regard to the nature of things, this knowledge is only an empty shell--a form of symbols. It is knowledge of structural form, and not knowledge of content. All through the physical world runs that unknown content, which must surely be the stuff of our consciousness. Here is a hint of aspects deep within the world of physics, and yet unattainable by the methods of physics. And, moreover, 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 foot-print 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 creature that made the foot-print. And Lo! it is our own."

'Dr. Alexis Carrel formulated the same difficulty differently, but just as aptly: "To progress again man must remake himself. And he cannot remake himself without suffering. For he is both the marble and the sculptor."'

Under scrutiny a theory of 'meaning of meaning'* would have to be a biological theory of evaluation based on the empirical data of modern science, which can not be handled within the limitations of aristotelian methods. An organismal, relational approach to evaluation is needed. Various Cheshire Cat theories of 'meaning' have bewildered us long enough. They can not be revised from within the aristotelian system, although their inadequacies can be profitably analyzed.³

There are many fundamental factors which justify our belief that within the aristotelian system it is extremely difficult if not impossible to build an adequate theory of 'meaning' which would be generally workable and teachable. For an extended account of the limitations and so difficulties imposed by the aristotelian system we must refer the reader to the non-aristotelian methodology as explained in Science and Sanity, from which a general theory of evaluation follows.

The life ramifications of the problems at hand are but little understood, and rather difficult to convey with the aristotelian methodology. The great mathematical physicist Poincaré said, 'The firm determination to submit to experiment is not enough; there are still dangerous hypotheses; first, and above all, those which are tacit and unconscious. Since we make them without knowing it, we are powerless to abandon them.' (S&S, p. 1). To which the philosopher Santayana adds, 'The empiricist . . . thinks he believes only what he sees, but he is much better at believing than at seeing' (S&S, p. 1), so well demonstrated in the scientific principles of deception, successfully applied in magic tricks and even in warfare.

To quote Santayana again, 'The philosophy [assumptions, creeds, etc.] of the common man is an old wife that gives him no pleasure, yet he cannot live without her, and resents any aspersions that strangers may cast on her character' (S&S, p. 4).

The mathematician Keyser says, ' . . . when once the principles, or postulates, are chosen, the die is cast - all else follows with a necessity, a compulsion, an inevitability that are absolute - we are at once subject to a destiny of consequences which no man nor any hero nor Zeus nor Yahweh nor any god can halt, annul or circumvent.'⁴

Endless other examples of such wisdom could be quoted from the greatest men we have. However, this wisdom and a great deal of available knowledge is at present not generally accessible nor workable just because of the lack of a revised methodological synthesis which could be imparted even in elementary education. The main task of a non-aristotelian system through its modus operandi, General Semantics (extensional method), is exactly to formulate this extant wisdom for general use.

*Unfortunately the authors of a volume with that title did not produce anything of the sort - just a promising title.

³Alfred Korzybski, Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics. International Non-Aristotelian Library Publishing Co. 1933. 3rd Edition with new Preface, 1948; Institute of General Semantics, Lakeville, Conn., Distributors. (LXXV + 806 pp.) Further page reference to this book will be given in the text with title abbreviated, S&S.

⁴Cassius J. Keyser, Mathematical Philosophy, E. P. Dutton and Co., 1922, p. 136.

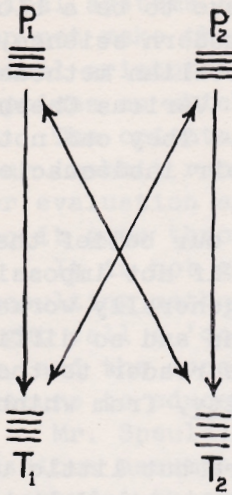


Fig. 1

The accompanying diagram represents a fundamental neuro-logical mechanism which operates in all of us, and may be useful in understanding the situation we are up against. The inter-connection between postulates and theorems, without the neuro-logical and life implications, has been discovered by mathematicians, particularly Euclid. Today it is taken for granted in science. Our investigations show that similar connections may be discovered in other human orientations by making unconscious assumptions conscious.

(P_1) represents a set of conscious or unconscious assumptions, or what we may call axioms, maxims, 'self-evident truths', principles, hypotheses, creeds, beliefs, dogmas, premises, or postulates. (T_1) represents the automatic more elaborate consequences of higher order abstractions, which we may call theories, rationalizations, inferences, opinions, orientations, attitudes, evaluations, etc. These influence our internal reactions on which ultimately our overt actions are based. Similarly from a different set of assumptions, etc., (P_2), also a different set of consequences, etc., (T_2) follows. This process is called by Keyser 'logical fate'.

In science and particularly mathematics we usually try to make assumptions conscious. Not so in life, often with sad consequences, except perhaps when we undergo psychotherapy and become conscious of our assumptions. Here we could make a broad generalization that the advance of science and its human value is based, among others, on making unconscious assumptions conscious. It may be said also that most of psychotherapy depends on the same process, thus linking science and sanity. It has not been suspected that the structure of our language automatically also involves silent assumptions which work through the processes of implications. Thus, if we use a language of elementalistic structure such as 'space' and 'time', 'body' and 'mind', 'emotion' and 'intellect', the silent assumptions are that these 'entities' can be divided, which is false to fact, as there are no such entities taken separately, and the split remains only verbal. A cat without a body should appear only to an Alice and only in Wonderland. Under the actual circumstances it is useless to argue from (P_1) to (T_2) or (P_2) to (T_1). Nothing but disagreements and quarrels follow.

For our practical purposes we may consider (P_1) a set of assumptions about the world and ourselves taught to us in infancy and childhood, and aggravated by the implications of the structure of our daily language. Then traditional consequences (T_1), based on false 'knowledge', follow. (P_2) may be considered as revised assumptions based on modern scientific data and methods, from which consequences (T_2) of science and sanity follow.

The wavy lines x, y, and z (Fig. 2) represent our vain struggles to reconcile the irreconcilables. The lines y and z represent our dissatisfactions, feelings of bewilderment, confusion, insecurity, frustration, fears of an incomprehensible unknown world, often despair, etc. The life import of this diagram can be best expressed by quoting the poet Housman, 'I, a stranger and afraid, in a world I never made.' The line x represents the vague and uneasy feelings of inadequacy, contradiction, conflict between

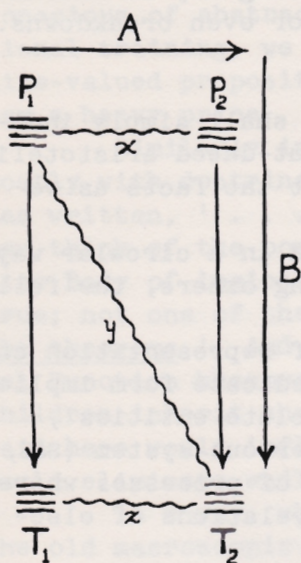


Fig. 2

instead of continuing with the wavy lines x, y, and z of bewilderment and confusion, struggling with unnecessary difficulties, we make the errors of the nursery and linguistic structural assumptions (P₁) conscious. Then, as indicated by the arrow A, we simply revise (P₁) to (P₂), from which (T₂), the modern world orientations and therefore the foundations of modern education and sanity follow automatically - arrow B. Experience shows that by this revision a great many difficulties in education and in personal adjustments disappear. In education and psychotherapy, we deal with pupils and patients who are full of (P₁) ↔ (T₁) while they have to live and struggle in a world of (T₂) derived from (P₂). Therefore the processes represented by wavy lines x, y, and z will not help, but the clear cut changes represented by arrows A and B will. To the best of our knowledge, such a revision from aristotelian to non-aristotelian assumptions and so systems has been formulated for the first time in Science and Sanity.

It is useless to try to build new adequate 'cortical blueprints', theories, etc., (T₂), while we are still at the mercy of our unconscious assumptions (P₁), and expect such 'blueprints' to work. Yet that is what we are constantly trying to do in science, education, and so in life and world affairs. Socio-anthropological investigations give ample data of how many personal, national and international tragedies, the present included, follow from disregard of the inter-connections as explained in the diagrams. We may also be able to understand how national characteristics are built up which ultimately may result in world wars. And how about our little private wars?

Before we can solve a problem we must be conscious that such a problem does exist, and this applies to the problem of assumptions, etc., outlined here. Obviously different criticisms of theories within the old system are very useful because they make us conscious that such problems do exist. What we need is extensional non-aristotelian methods to handle our neuro-linguistic and neuro-semantic mechanisms on the basis of the revised assumptions.

science and the prevalent notions about life, lack of communication, blocking of intelligence, cultural lag, protest, doubt, disillusionment, cynicism, helplessness, hopelessness, etc., feelings very justly expressed by another poet and dramatist, Shakespeare, 'Something is rotten in the state of Denmark.' Certainly contemplating the chaos we are in, we have a right to feel that something is rotten in the state of our symbolic class of life.

It must be realized that without understanding the neuro-logical mechanisms we mostly deal with people with limited, hopelessly out of date, and often dangerous (P₁) and try to convey to them (T₂) orientations of modern life, which with tacit (P₁) is well-nigh impossible. This explains why education and psychotherapy, which may be called 're-education', are so extremely difficult and often ineffective. If we follow our scientific experience, the solution is rather simple, but in practice not easy. In-

We must emphasize that the neglect of the foregoing may in extreme cases precipitate 'mental' or nervous disorganization, or even breakdowns.

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It is impossible to give more details here. We shall simply indicate a few of the inadequacies and limitations of the out-dated aristotelian system, which today under changed conditions can not fit the facts as we know them.

The aristotelian system, strictly interconnected in a circular way with the structure of our daily language, involves, among others, the following conscious or unconscious (silent) assumptions:

1) The belief that the subject-predicate form of representation can cover scientific and life requirements. The subject-predicate form implies an anthropomorphic static world of 'substance', of 'absolute entities', 'properties', 'qualities', etc., made up by the human nervous system (S&S, pp. 62, 371 ff.), and is inadequate to cover a dynamic world of processes where even the 'properties' of an atom depend on the dynamic relations of electronic structure.

To quote Russell: 'The belief or unconscious conviction [assumption] that all propositions are of the subject-predicate form - in other words, that every fact consists in some thing having some quality - has rendered most philosophers incapable of giving any account of the world of science and daily life' (S&S, p. 85). Whitehead says: '...the subject-predicate habits of thought . . . had been impressed on the European mind by the over-emphasis on Aristotle's logic during the long mediaeval period. In reference to this twist of mind, probably Aristotle was not an Aristotelian'. (S&S p. 85).

The similarity or difference of predicates are both symmetrical relations, and can not account for asymmetrical relations. Yet, to quote Russell again: 'Asymmetrical relations are involved in all series - in space and time, greater and less, whole and part, and many others of the most important characteristics of the actual world. All these aspects, therefore, the logic which reduces everything to subjects and predicates is compelled to condemn as error and mere appearance' (S&S, p. 188).

2) The belief that life and science can be accounted for by propositions which are either true or false (two-valued orientation). In life we deal mostly with propositional functions which are neither true nor false but at best ambiguous until we assign values to the variables; that is, until we utilize extensional devices, indexes, dates, etc., so that we know what we are talking about in a world of 'degrees' and stages of processes. For example, if we say, 'Human nature is (has the "properties" of) so and so', this generalization in life is neither true nor false, but ambiguous. Grammatically we may consider this a proposition; in actual life, 'human nature' is a variable, and therefore this statement represents a propositional function until we assign a value to the variable and say, 'The nature of Smith₁¹⁹⁴² Tokyo is so and so.' Then it becomes a proposition in life as well as in grammar, and by observation may be true or false. If we are unconscious of these issues, then by necessity we orient ourselves by traditional grammatical structure and so attitudes, ignorant of latest scientific developments which require new orientations. We habitually treat propositional functions (generalizations involving variables) as propositions, and so make a mess of life, and even science. In the meantime we naturally have to have generalizations, but with the new, revised attitudes (P₂) ↔ (T₂)

described here we would not trust our generalizations per se, because we would be conscious of abstracting (S&S, Part VII). In other words, through our traditional training, we identify in life the two-valued propositions with infinite-valued propositional functions, and for this identification we often pay a heavy price.

Similarly in the field of 'theories' or doctrines we are dealing mostly with doctrinal functions involving variables (S&S, p. 144 ff.). Keyser has written, ' . . . our postulates and theorems involve variables, let us now think of the postulates and theorems as constituting a Whole - a definite Body of logically related propositional functions. Not one of them is true; not one of them is false. What is true is that the postulates imply the theorems.' And further on, 'In marriage with subject-matter, a Doctrinal Function becomes the matrix of an infinite family of doctrines; the children inherit the form of the mother.'⁵ The realization of what was said here would influence constructively those who deal with theories and would eliminate endless unnecessary academic bickering.

In a way, what was said here may be the crux of the passing from the old macroscopic aristotelian orientations to the new non-aristotelian sub-microscopic dynamic process orientations. To repeat, we actually live by infinite-valued propositional functions and doctrinal functions and believe that they are two-valued propositions or doctrines. Here we may point out that scientific investigations, if of any value, have to have applications to life, which depends on teachable methodological formulations. We earnestly suggest that the reader reflect on his own life and translate what has been explained before in general, into terms of his own personal life. He may then understand the significance of assigning a value to a variable.

3) The belief in the unique validity of the two-valued 'either-or' orientation, which has been embedded even in the structure of our language, and leads automatically to rigid, inflexible, elementalistic orientations. In the old less complex world we could get along with the rigid two-valued certainty of the aristotelian system, the true-false type of reactions, modified when necessary by intuitive 'common sense'. Yet, though our orientations may be two-valued, the facts of nature and living are not and require **more** flexibility and the multi-valued orientations of maximum probability, as illustrated even by the needs of modern physics and mathematics.⁶

4) The belief that identity, as 'absolute sameness in all respects' does actually exist in this world. Thus, a macroscopic 'object' is believed to be 'identical' with itself, which in a world of sub-microscopic electronic processes is just simply false to fact, and as a standard of orientation extremely dangerous. A system which fundamentally assumes identity by necessity trains us in identifications. Psychiatrists are fully aware of what a sinister rôle identifications play in 'mental' illnesses. What is generally not realized at all, even by psychiatrists, is that identifications of lesser degree may play havoc in life (S&S, pp. xiv, xv). Speaking from observation, we have come to the conclusion that if we leave

⁵Cassius J. Keyser, op. cit., pp. 57, 59.

⁶Charles Galton Darwin, 'Logic and Probability in Physics,' Science, August 19, 1938, pp. 155-160. Barkley Rosser, 'On the Many-Valued Logics,' American Journal of Physics, Vol. 9, No. 4, August, 1941, pp. 207-212. Hermann Weyl, 'The Mathematical Way of Thinking', Science, November 15, 1940, pp. 437-446.

in our orientations any trace of 'identity', and so the consequent identifications, only bewilderment results in life in a world of non-identity. Formalists (mathematicians, 'logicians', etc.) still do not seem to be able to realize the life implications of the structure of language, and of their own work, and to take language as a living issue. They persist in using the terms 'identity', and 'identifications' in the abstract, forgetting that the process of living is an empirical actuality, not a mere verbal abstraction. We can do no better than to suggest to those interested to study for a few months in hospitals for the 'mentally' ill. They would then be convinced what living in a built-up fictitious escape-world of abstractions entails. Obviously it is not denied that for any rational discourse we must postulate the principle of symbolic uni-valence.⁷ But this certainly is not 'identity'.

5) The belief that the principle of additivity (in mathematics called linearity) can adequately account for all the relations involved in the fields of science and life processes, which is implied in the three-letter word, and. Of late we know that the world and life in their fundamental functional aspects are not additive (S&S, Ch. XXXIII). To give a simple example, one gallon of alcohol and one gallon of water if mixed together do not make two gallons of liquid, because profound and as yet not understood sub-microscopic processes take place. Naturally before the developments of modern science we took only the simple macroscopic issues into consideration, and gradually built up an additive attitude and language to deal with them. As to the vicissitudes of the little 'and', we may mention that physicists found that in their modern work the old two-valued 'logic' is inadequate. They requested mathematicians to produce many-valued 'logics'. Well, in the traditional two-valued 'logic' we had one 'and'; in a three-valued 'logic' we already have 256 'ands', and in a four-valued 'logic' we have many millions!⁸ What is said here about 'and' is not an isolated instance. How without consideration of such actual linguistic conditions can we try to build up theories of 'meaning'?

6) The belief that in science and life we can define all our terms and prove all our statements. On investigation it is found that any system and its corresponding language must ultimately depend on a set of undefined terms which are labels for direct experience not on the verbal level, and which must be considered as assumptions and so variables (S&S, p. 151 ff.). This situation is epitomized by Keyser: 'If he contend, as sometimes he will contend, that he has defined all his terms and proved all his propositions, then either he is a performer of logical miracles or he is an ass; and, as you know, logical miracles are impossible.'⁹

The above list of assumptions is very far from complete. More of the main differences between the aristotelian and non-aristotelian systems are given in the tabulation on pages xx, xxi, and xxii of the second edition of Science and Sanity.

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There are also some fundamental factors entirely disregarded in the aristotelian system, which affect science and life. These factors are present with us and unavoidable, yet this disregard leads to very serious diffi-

⁷Oliver L. Reiser, The Promise of Scientific Humanism, Oskar Piest, 1941, pp. 50, 69, 84.

⁸Barkley Rosser, op. cit.

⁹Cassius J. Keyser, op. cit., p. 152.

culties. Although theoretically we might consider this disregard as errors of omission, yet in living these turn out to be errors of commission, because they involve unconscious assumptions ('allness', 'identity', etc.) and so become active sources of real impasses in evaluation. It seems that this statement is quite general, because we can always discover the underlying unconscious assumptions by a careful analysis of omissions as lived through. Space does not permit us to translate each of the following errors of omission into errors of commission, but the reader can readily perform this task of translation by himself. It is the aim of education, science, and psychotherapy to make us conscious of errors of omission, point out the active unconscious assumptions underlying them, and so prevent mis-evaluations in life. Here we can mention only a few errors of omission, such as:

1) The disregard of the neuro-linguistic and neuro-semantic environments as an environment unique for our symbolic class of life. These are no more avoidable factors than air or water. They may have disastrous effects on us, and we know enough about environmental factors, for instance, in occupational diseases to understand the gravity of such disregard.

2) The disregard of the structure of language as such and its automatic influence on our orientations. Thus, the presence or absence of the assumption of 'identity' can make the structure of a language elementalistic or non-elementalistic, intensional or extensional, subject-predicate or functional, etc.

3) The disregard of the multiordinality of our most important terms, such as 'yes', 'no', 'true', 'false', 'fact', 'reality', 'love', 'hate', etc. (See index, Science and Sanity). These apply on all levels of abstraction, yet on each level they may have different extensional contents, and so values.

4) The disregard of the over/under defined character of most of our terms, depending upon whether our attitude toward language is intensional or extensional (S&S, pp. xxxiii-xxxvii).

5) The traditional system of orientation disregards the rôle of the human nervous system, and hence the Cheshire Cat character of theories of 'meaning', and even of psychiatry.¹⁰ Obviously any theory, if it is to account adequately for human reactions, and so actions, must be related explicitly to the structure and function of the human nervous system. It appears that considerations of the fundamentals of neuropsychiatry, mathematical foundations, mathematical logic, mathematics, etc., and their methods, are essential for the clarification of the many problems in building any theory of 'meaning'.

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The reader is advised not to confuse the traditional 'Semantics' (aristotelian theories of 'meaning', etc.) with 'General Semantics' (the modus operandi of a non-aristotelian system). General semantics formulates an empirical natural science based on the action and reaction of the human nervous system. It is a general theory of evaluation involving the nervous-system-in-an-environment, and it has very little, if anything, to do with 'meaning' in the academic sense.

The three authors of this monograph, each with a different approach, have done very fine work in trying to straighten out some of the issues involved. Yet much remains to be done, as the problems are so very complex.

¹⁰George H. Preston, op. cit., pp. 7, 8.

The editors and publishers will feel satisfied if only the present monograph stimulates interest in these pressing and difficult problems, and so leads to further investigation, research, and such formulations as would be applicable to all phases of human life, even at the level of nursery education.

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