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I hereby recommend that the thesis prepared under my supervision by H. G. Schrickel

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be accepted as fulfilling this part of the requirements for the degree of Doctor of Philosophy

Approved by:

P. B. Rice

E. G. Spaulding

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PROLEGOMENA TO A THEORY

OF VALUE

A dissertation submitted to the

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requirements for the degree of

DOCTOR OF PHILOSOPHY

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by

H. G. Schrickel

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INTRODUCTION

Ever since the separation of philosophy from theology at the close of the medieval period, human thought has become increasingly specialized. Although there have been great syntheses in modern thought as, for example, that of Leibniz, human knowledge in becoming scientific has divided into many branches. Previous to the modern period knowledge in all the different realms of human experience was to be found in all-embracing metaphysical systems. These systems included accounts of the nature of matter, life, mind, beauty, and everything that man has had occasion to reflect upon. With the division of knowledge, however, these several problems have come to be dealt with separately and in relative isolation from one another; physics accounts for matter, biology studies life, psychology analyses mind, aesthetics defines beauty, and in general, no comprehensive systems are put forth as systematically accounting for the whole of human experience. With the development of the

sciences and their methods man has achieved the greatest body of knowledge in the history of civilization. This growth and development of scientific knowledge has brought for science and scientists a high esteem and admiration in the eyes of the modern layman. The high esteem in which modern science is held has had several effects. One of these has been to turn the attention of philosophers from speculatively constructing world-systems to critically examining the basic presuppositions and methods of the various sciences. This might be spoken of as the critical function of contemporary philosophy. But criticism is of no value if it does not lead to the furtherance of knowledge. Early philosophical criticisms of science were in many instances of such a negative nature, but with the successes of modern science increasing daily most philosophers have come to realize that their work, even if critical, must lead to positive contributions to human knowledge. This conviction, slowly arrived at, is responsible for recent philosophical attempts to construct a cosmology based upon the findings of the modern sciences. Hence recent philosophy has both analytic and synthetic characteristics.

The problem of value, however, remains in that earlier phase of the modern period when knowledge was viewed as being fundamentally specialized and broken up

into distinct fields of inquiry. Value has been treated as if it were the special subject-matter of the specific science of psychology along with whatever in biology and the social sciences is found to be relevant or helpful. In other words, value is, according to this view, the subject-matter of a special abstractive method. An abstractive method ignores from the very beginning everything that is not a part of its selected subject-matter regardless of how integrally related to that subject-matter some of these left-out aspects may be. As is often the case, those using this method feel no responsibility for adequately relating what is left out at the start with the conclusions arrived at regarding the selected elements. Some modern treatments of value as a purely psycho-biological problem are guilty of this fault. Value is said to be present only in situations where a human organism with all its desires, emotions, and biological drives, is stimulated to the pursuit of certain ends in preference to others. This can hardly be objected to, but from this initial definition of the problem it is usually inferred that value as a function of the stimulus-response situation can be specifically defined by enumerating and classifying the biological drives of the responding organism. The stimulus-object drops out of the picture and the responding subject dominates the scene. There ensues a typical "subjective"

theory of value. The definition of value given is, as a result of the abstractive method used, only a partial truth often presented as the whole truth.

When such psychological definitions of value are compared with the definitions offered by the great traditional systems of philosophy at least one important difference is to be discerned. The latter type of account is found to be more fundamental and more far-reaching than the former. Among the systematizers the problem of value is treated as a basic problem relevant to and integrated with other fundamental problems. Propositions about value as well as other propositions were treated from the point of view voiced by Whitehead when he says that "apart from a complete metaphysical understanding of the universe, it is very difficult to understand any proposition clearly and distinctly, so far as concerns the analysis of its component elements."[1] More specifically, wherein lies the superiority of these traditional accounts of value over many contemporary theories? Certainly not in the truth of their conclusions because many of these have been seen to rest upon ultimately untenable presuppositions. Closer examination reveals that the superiority of these former

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1 - The Function of Reason, p. 54

theories of value lies in their recognition of the fundamental nature of value and its integral relations to certain fundamental problems. Any theory of value, in order to be fundamentally adequate, must recognize the basic nature of value and its relations to other basic problems. With this in mind we can test any given theory of value for its fundamental adequacy and thereby determine its truth and significance.

The question might be justly asked at this point, "Just how does the test for fundamental or metaphysical adequacy differ from the tests employed by a science in the establishment of one of its hypotheses as a scientific law?" Our answer would be that the former is more far-reaching than the latter; that the first takes all of experience as its testing ground while the second operates within the confines of the so-called "controlled situation" (or an attempted approximation thereof); the former is synoptic rather than limited to any one domain. For example, although psychology, economics, and sociology take human nature and conduct as a common subject-matter, each science concerns itself with only a limited phase of that subject-matter. The result is that each science contains theories verified by the defined and limited facts of that science. Theories within a science are also tested for their mutual logical consistency. In each science the ideal

set up is a logically consistent conceptual system explicative of and verified by the defined realm of phenomena treated by that science. Testing for fundamental adequacy is a much broader and deeper process; it is, in a sense, an extension of scientific verification. It demands verification of a theory, regardless of what science it is associated with, by relevant facts which exist outside the defined and limited field treated by that science wherein the theory is to be found. It also demands the logical consistency of a theory with the whole of human knowledge,- whatever that may be at the time. In other words, a particular science attempts to devise mutually consistent principles that will explain and be verified by the facts of its own domain. Critical philosophy, however, attempts to coordinate the findings of all the sciences into an organized and systematic body of knowledge. Since what is systematized is scientific knowledge,- and, therefore, knowledge with only a high degree of probability,- the goal in view is not a rigid and final systematization of knowledge but rather an advance in knowledge itself. This procedure has been called by Whitehead the "discipline of <u>speculative Reason</u>" and, as he puts the matter, "the object of this discipline is not stability but progress."[1]

1.- Op. cit., p. 66

Testing from a formal point of view, the critical philosopher may use the "postulational technic" as worked out in recent logical theory by E. V. Huntington[1] and others. Applying this to a value theory we may say that the hypotheses of any theory of value must have internal formal consistency; they must comprehend the universe of discourse which they are intended to explain; there should be no more postulates or hypotheses in the theory than are necessary to explain the universe of discourse; and finally, the hypotheses should be free from redundancy, i.e. no one should be provable from the others--each is independent of the others. The broader aspects of the test for fundamental adequacy include: (1) the appraisal of a scientific theory in the light of all the facts relevant to it, including both those facts originally intended to fall within the comprehension of the theory and those facts and verified hypotheses in other fields of human knowledge relevant to the theory being tested; and (2) the analysis of the logical relations of the theories of one science to those of the other sciences. Briefly, when this broader test is applied to any theory-

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1 - Cf. The Method of Postulates, Philosophy of Science, vol. 4, 1937

scientific or otherwise--a twofold question is being asked, "Does this theory make sense and how true is it when what is relevant to it--in scientific theory and in fact--is considered with it? Hence philosophy may be regarded as a critical appraisal of the methods and basic concepts of the sciences,[1] an attempt to unify all knowledge, and an endeavor to devise a scientific world-system or metaphysics.[2] Whatever the other functions of philosophy these are involved in the philosophic approach to basic problems. Philosophy thus conceived uses as its tool the test for fundamental adequacy when logically valuating any explanation or theory about experience (reality). Application of this test in any given instance goes on the assumption, or rather demand, that the account tested must rest upon a metaphysical foundation whether this metaphysics is implicitly or explicitly given. Whether it be a scientific theory, a religion, or a theory of value it must be based upon metaphysical principles that can be tested in the ways we have suggested. Any explana-

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1 - "....the word 'metaphysics' no longer means what it did. For philosophical students at least it now denotes any study of basic principles, regardless of their source... metaphysics has come to mean an appreciation of the most basic conceptions involved in any branch of natural knowledge, or even in any art." Some Major Confusions of Contemporary Positivism, H. Miller, Journal of Philosophy, vol.32, 1935, p. 516.

2 - Cf. The Root Metaphor Theory of Metaphysics, S.C.Pepper, Journal of Philosophy, vol. 32, 1935

tion about anything is open to the test for fundamental adequacy.

The degree of fundamental adequacy displayed by a particular account of value has varied with its author so that it is difficult to select one account and say that it is definitely fundamentally adequate and at the same time choose another account and characterize it as completely without fundamental adequacy. Hence a method of comparison seems to be the best way to bring out just what is meant by a fundamentally adequate theory of value. For this reason we have chosen an ancient and a contemporary theory of value, each representative of two possible approaches to the problem of value. Aristotle's theory of value will be found to display several characteristics: it is absolutistic, rationalistic and cognizant (1) of the fundamental nature of the problem of value; and (2) the integral relations between the problem of value and certain other fundamental problems. R. B. Perry's theory of value will be found as psycho-biological, subjective, and not so obviously cognizant of the fundamental nature of value nor of the integral relations between the problem of value and certain fundamental problems. In selecting these two theories it is felt that each exemplifies its particular line of tradition probably better than other theory advanced in the same tradition. Modern absolutistic

accounts of value such as that of N. Hartmann[1] lean heavily upon Aristotle's theory of value while R. B. Perry in his General Theory of Value[2] has given the most exhaustive treatment of the psycho-biological subjective account of value.

The fundamental adequacy of Aristotle's account is clearly brought out in different problems he treated as relevant to the problem of value; on the other hand, his solutions to these problems are in many instances outmoded and unacceptable today. Having seen that Aristotle recognized certain basic problems as integrally related to the problem of value and then attempted to solve these problems, we see by comparison, that in Perry these same problems occur whether recognized or not, and that Perry, in most instances, fails to give them the attention they need to render his theory of value fundamentally adequate. During the course of what is to follow we shall attempt to show some of the problems that Aristotle took as relevant to the problem of value, how these problems follow inevitably from Perry's definition of value, and what the scientific empiricist has to offer as solutions to these problems. Briefly, our concern here is with

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1 - Ethics, London: George Allen and Unwin Ltd, 3 vol.,1931

2 - Longmans, Green & Co., New York, 1936

demonstrating the fundamental nature of the problem of value, the relations of the problem of value to certain recognized fundamental problems, and hence the necessity of recognizing and attempting to solve these problems before attempting a definition of value. We are not concerned here primarily with advancing a definition of value and defending it; rather we are concerned with showing the problems that must be solved before the problem of value can be solved with any degree of fundamental adequacy. The fundamental problems treated by Aristotle as integrally related to the problem of value are so related to the problem of value. A fundamentally adequate treatment of value must deal with these problems but in doing so it does not thereby become an Aristotelian theory of value. The list of problems treated here is not advanced as exhaustive; rather this list should be viewed as only suggestive. We shall present now (1) a brief exposition of Aristotle's theory of value revealing his cognizance of the fundamental nature of the problem of value and the basic problems integrally related to the problem of value; (2) a brief account of Perry's theory of value; and (3) a more detailed account of some of the basic problems relevant to a fundamentally adequate explanation of value, adding suggestions for solving these basic problems wherever possible.

PART I - Section A

Aristotle's conception of the Platonic theory of the Forms led him to believe that the conflict between the Eleatic and Heraclitean metaphysics was as yet unresolved. Viewing this resolution as the first necessary step to be taken in solving the problem of reality, Aristotle proposed what Windelband[1] has called a "system of development" in which Aristotle's problem is to define clearly "the relation of Form and Matter" (the relation of universals and individual phenomena) in an attempt to solve the problem of change or Becoming, a fundamental aspect of the real. Viewed statically, the real (the individual thing) has for Aristotle two aspects, viz. Form and Matter. "We further observe that Matter and Form are strictly correlative. The matter is called so relatively to the form which gives it further determination. When the words are used in their strictest sense, with reference to an individual thing, the Form is taken to mean the last determination by which the thing acquires its complete character, and the Matter is that which has yet to receive this last determination."[2] That is to say, the Matter of individual things is in all instances specified or specifically organized;

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1 - History of Philosophy, pp. 139-154

2 - Aristotle, A. E. Taylor, p. 54

completely undetermined matter is a fiction of the imagination. The Matter of any individual thing may be reduced to ultimate elements, but these elements themselves have a kind of structure or organization.[1] Thus Matter is that which has the potentiality for a more determinate organization and Form is that determining organization or structure.

Viewed dynamically, the antithetical relation of Matter and Form is explained in terms of the Aristotelian potentiality-actuality principle. For example, when an acorn has grown into a mature oak bearing acorns, it may be said to be existing <u>actually</u> as compared with its condition as an acorn, at which time its existence was <u>potential</u>. "Hence we may say of a given germ, 'though this is not yet actually an oak, it is potentially an oak,' meaning not merely that, if uninterfered with, it will in time be an oak, but also that by no interference can it be made to grow into an elm or a beech. So we may look upon all processes of production or development as processes by which what at first possessed only the tendency to grow along certain lines or to be worked up into a certain form, has become actually endowed with the character to which it

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1 - Cf. <u>Aristotle</u>, W. D. Ross, p. 105

possessed the tendency."[1] Hence, when any object or event becomes another object or event, it is bringing into actuality that which previously existed within it only potentially.

Although Matter is essentially potential in its existence, because it can always be other than what it is, it is also eternal for it is not potentially not-being. Form, as that which is completely embodied in an actual individual thing, is also eternal; for although particular phenomena as material[2] approximations of it differ, one from the other, and all cease to exist, the Form which they realized in common, but to different degrees, persists without change or beginning. Great importance is attached by Aristotle to the end or completion of process. Of the four causes[3] that he finds operative in the real existence of individual things, the Final Cause is to him the most important. The Final Cause of a thing is the completion of the development or becoming of that thing. The Final Cause of a thing might thus be called the end or aim of that thing. Not only is the Final Cause of things its "end or aim" and completion of its process of becoming, but it is

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1 - Aristotle, A. E. Taylor, p. 57

2 - Aristotelian terminology used throughout this passage.

3 - The Material, Formal, Efficient, and Final Causes.

also for Aristotle the *good* for that thing.[1] By substituting the modern term *value* for the ancient term *good*, we have Aristotle's explanation of the *intrinsic nature* of value. What of the relations between the completions of things or the values in a world-order?

Observation of human experience discloses that many things in the world are ends in reference to some things and means in reference to others. The end of paper-making, for example, is paper, but paper is just as truly a means of book-making as it is the end or aim of paper manufacturing. In Aristotelian terms, paper is the Final Cause, the *actual* existence of that which was potentially existent in the materials of, and successive phases in, the activity of paper-making; it is the realization of the Form of paper-making. At the same time, with reference to the activity of book-making, paper is a Material Cause, and as such, is potential in its existence. It has actual existence in this connection, only when the end of book-making (books) is attained by the completion of the book-making process; it is part of the Matter of book-making. Paper then, is both a Final and Material Cause (Form and Matter) and actual and potential in its existence. Whichever it is at any given instant depends upon the

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1 - Hence the labelling of the Aristotelian *Ethics* as a *perfection* theory of moral value. Cf. *Moral Values*, W. G. Everett, pp. 83-86

system of reference within which you find it. Such is the nature of the relations between values. In an ordered world, the different parts of that universe are integrally related; one part depends upon another for its own existence and nature. The teleology we have just outlined is the Aristotelian way of explaining: the existential nature of value, the relations between values, and the relations between values and the rest of the universe. Every individual thing has its own definitive and proper end and the attainment of that end is the proper value for that thing. At the same time, to the degree that a thing attains its end, it (the more or less completed thing) is a value for the rest of the universe. No better illustration of this principle could be given than the Aristotelian explanation of the relations that exist between man and the state.

Man, a part of the universe, is an organic being whose functions are nutritive (in common with plants and animals) and sentient (in common with animals only). As a "political animal" living in the city-state, man's telos or end is happiness, or "living well and doing well." All these things are included in man's life, but that which is his "last determination" and definitively characteristic of him <u>qua</u> man is a life according to reason; this is his proper end. "The end of the state is the good life" or put differently, "political society exists for the sake of

noble actions, and not of mere companionship."[1] Economic security, physical well-being, the maintenance of order within, and other functions are to be found in the state, but that which is definitively characteristic of it, and consequently its proper end, is the fitting of its citizens for and the promotion of the good life. Further, the Final Cause or end of the universe is God, toward whom all things strive, consciously or unconsciously. Since all things strive toward actual existence or completion, God as pure actuality is the end of all. In terms of value, what does this explanation mean?

We have previously said that for Aristotle the attainment of the proper end of a thing is a value for that thing. Socrates, in living a life according to reason, is attaining his proper end and doing that which is of value to himself as a man. At the same time, he is so related to the rest of the universe that in living rationally he furthers the attainment of the proper ends of all other things and is thus valuable to the rest of the world. If he fails to attain his proper end, he lives a life that is of negative value to himself and to everything else in the universe. This is based upon the principle that value is a quality of completion and that completion

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1 - Politics, 1281a3-4

is determined in individual instances by the individual potentiality of a thing as that thing and its potentiality in relation to other things. A life according to reason is the completion and actual being of Socrates as a man. That completion is valuable to him and the rest of the universe for it is actual in its existence, actuality being the end or value for all things. To the extent that Socrates does not lead a life of reason, his existence is only potentially a value (however actual his existence may be in other respects), and hence negative in value both to himself as a part of the universe and to the other parts of the universe; that universe consisting of things all striving for actuality. Completion, as the attainment of a proper end, is actual rather than potential existence, and is value per se; it is also that which is valuable to all the parts of a universe striving for actuality or Being. Reducing the statement of this theory still further Aristotle would say that value is completion of process toward proper ends; i.e. that which is completed or actualizes its proper end is valuable both to itself and to all other things.[1]

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1 - The determination of value in terms of the reciprocity of the relations existing between parts of the universe extends even further. X is a value for Y and Y for X. To the degree than X attains its end, it is a value for Y. The value of X for Y is further determined at the same time by the degree to which Y attains its own end.

What we have just sketched might be termed Aristotle's ontological account of value. Based upon a metaphysical analysis of experience, this definition of value rests upon broad and fundamental concepts that are logically independent (in the postulational sense) of other concepts he uses elsewhere in his system. It is in this respect that his theory of value displays a high degree of fundamental adequacy. Other concepts that he uses elsewhere in his system are integrally related to the cornerstones Form, Matter, potentiality, actuality, and the Four Causes so as to form a coherent and consistent metaphysical foundation for his thought. Just how this is so will become clearer as we proceed. What we wish to point out at this juncture is that Aristotle defined value in terms of a metaphysical analysis of existence and hence may be said to have regarded the problem of existence as integrally related to the problem of value.

As we have noted, Aristotle is deeply concerned with the problem of change and attempts to solve this problem in the manner that we have briefly outlined above. He continually makes a distinction between the contingent and the necessary element in the universe. Ross says in this connection that "it is not always clear whether he means that there are events which are objectively undetermined, or is distinguishing between necessity which we can

trace and that which eludes us; but apparently he believes that in human action, at all events, there is an actual contingency."[1] Aristotle's belief in the "actual contingency" of "human action" led him to the conclusion that any science dealing with human action could begin and end only with tentative statements. His explanation of the probability of both premisses and conclusions in the humanistic sciences would run something like this: Ethics is the study of processes; all processes vary (both within themselves and with other processes); human activities as processes display this two-fold variability to a greater degree than any others, because of the most complex nature of the specified Matter (the human organism) and the Form (the human soul) of human beings; therefore ethics (or the broader science, value theory) will always be unavoidably limited in its attempts for certainty. Recognition of this as an initial difficulty led Aristotle to attempt a solution by devising methodologies appropriate to the different subject-matters of human knowledge. How he did this is more important to us than are his conclusions, and it is with this in mind that we turn to his attempted solution of this problem.

Surveying the fields of human knowledge- and using the potentiality-actuality principle as a criterion- Aristotle classifies human knowledge according to subject-

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1 - Aristotle, pp. 188-189. Italics mine.

matter into three sciences; the theoretical, which deals with that which is without potentiality or capacity for change, and the practical and productive, which may be grouped together, as both deal with that which is contingent. Politics, he finds, is the highest of the practical sciences, for it uses as means to the attainment of its own end the findings of all the other practical sciences;[1] theology is the highest of the theoretical sciences, it being pursued for its own sake and not as a means to anything else. Ethics is a practical science, and, since by definition it deals with a contingent subject-matter, "We must be content, then, in speaking of such subjects and with such premisses to indicate the truth roughly and in outline, and in speaking about things which are only for the most part true and with premisses of the same kind to reach conclusions that are no better."[2] Broadly, the difference in method between that of the practical sciences and that of the theoretical is that the former utilize an inductive type of reasoning while the latter employ the demonstrative method. The inductive method is essentially the observation of particulars culminating in an intuition

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1 - This relation of means to ends (Matter to Form) in the Aristotelian system we have discussed above.

2 - Nichomachean Ethics, 1094b19-23

of a universal truth afterwards seen as self-evident,[1] while demonstrative reasoning is the logical deduction of other less general principles and particular instances from already known universals or "first principles". Sense experience is of the contingent while the mind or reason deals with the necessary (e.g. mathematics). It is appropriate and logical therefore, that primacy be given in each respective method to that part of the soul which is by the nature of things directly connected with the two different aspects of reality--potentiality and actuality. Such is the case in the inductive and demonstrative methods of Aristotle, for in the former whose subject-matter is the contingent, the greater part of the method is devoted to the observation of particular things; this observation, of course, being carried on through the senses. The latter method which deals with a necessary subject-matter is essentially a method of reasoning; reasoning that operates within the necessary laws of thought (Aristotelian logic).

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1 - Lewes' objection to Aristotle's application of the latter's inductive method is that Aristotle observed the opinions of other thinkers rather than the facts themselves. (The History of Philosophy, vol. I, pp.311-316). His criticism overlooks the value of Aristotle's investigation of the opinions of others as a means toward a broader perspective on presumptive concepts in the facts. In general, Aristotle defines the methodology of scientific ethics as an argument to first principles and not from them; the latter being the method of the theoretical sciences. Nichomachean Ethics, 1095a30-b8

A summary is in place here. With his potentiality-actuality principle as a premiss, Aristotle arranged the various fields of knowledge according to the degree of contingency or necessity displayed by the subject-matters of these different sciences. Subject-matter he held, should determine method. Human action he found fundamentally contingent and hence he felt that those sciences dealing with it, e.g. ethics (or value theory), should utilize a methodology best fitted to deal with the basic contingency of human conduct. We wish to make no comment at this time other than to point out that Aristotle regarded the problems of (1) classifying the sciences and (2) determining the proper methodologies for these sciences (including ethics or value theory) as relevant to the problem of defining value.

The application of the potentiality-actuality principle to human nature is the basis of the Aristotelian epistemology, psychology, and theory of education. Briefly, the soul is the Form of man, or put another way, his conduct is his entelechy, and the total organism involved in conduct is his Matter. The soul, as the entelechy of the body, is synonymous with what we mean by life. The potential and actual existence of the soul in the body are desiderative and rational activity respectively. Man's attainment of his proper end, when certain other

conditions such as good birth, friends, economic security, and others are present, is what is meant by complete happiness. Desiderative activity or activity that springs from the appetites is the potential existence of the soul in the body, or man's incomplete attainment of his proper end. The soul, as the entelechy of the body, when actualized in the body is rational (properly human) activity; when not completely actualized but only potentially existing in the body, it is desiderative or appetitive activity. The duty of educators is to facilitate the soul's actual existence or the attainment of man's proper end- the completion of his development (a necessary component of human happiness). With such general ideas in mind, let us turn to Aristotle's more detailed analysis of human nature. We consider first moral virtue and the irrational or appetitive part of the soul.[1]

Desire, as the cause of human action,[2] is the psychological term for a stage in the "system of development" in human nature; viz. the potential existence of the soul in the body. Desire has in turn its own system of

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1 - Aristotle's division of the soul into parts and the discussions of commentators on this division of the soul are misleading rather than helpful to an understanding of the former's application of the potentiality-actuality principle to psychological problems.

2 - Cf. De Anima, III, 10, 433a17-28

development, for it "like everything else in life, grows and is marked by different stages.[1] Three principal ones are distinguished, 'faculty, emotion, and habit' (δύναμις, πάθος, and ἕξις). The faculty is the inborn tendency to have such and such a desire, which is implanted in us by nature; the emotion is the desire in action with its affective side fully developed; and the habit is the fixed mode of occurrence which desires gradually assume from constant exercise." Pleasure is the feeling that accompanies that unhampered activity which satisfies a desire or desires. Pain is the affective tone of unsatisfied desire, the beginning stages of desire, and the hampered activity which seeks the satisfaction of desire. The disciplining of the desires into the right habits of conduct, accompanied by pleasure, is the task of the educator who seeks to mold good moral character.[2] Once the proper habits are formed, a new pleasure-

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1 - Aristotle's Psychology of Conduct, A.K.Griffin, p. 22. Griffin bases this statement upon material derived from the Nichomachean Ethics II 5, 1105b20-28; Eudemian Ethics II 2, 1220b11 ff.; Magna Moralia I 7, 1186a10 ff..

2 - Mental δυνάμεις "are equally capacities of producing contraries while the physical are restricted to one of two contraries. The capacity of heat, for instance, is capable of producing heat alone; whereas the δύναμις ἰατρικὴ as being a mental capacity, and connected with the discursive reason, can produce indifferently either health or sickness." (The Ethics of Aristotle by A. Grant, p. 228) Thus the general desire to give to others, when habitually limited to the finite act of liberality develops in the character the definite and acquired capacity for liberal acts. What has been mere potentiality in a general way has now become a definite capacity. When this definite capacity finds its fullest expression in activity it is accompanied by pleasure and "perception" of the Good or moral value.

the feeling concomitant with doing virtuous acts- arises; viz. the pleasure attendant upon the acquired sense of a faculty meeting its proper object. This acquired sense we might call moral insight and it is the ratio cognoscendi of moral value. It is this sense that is characteristic of the wise man who perceives clearly particular moral values in the daily routine of practical living. It is for this reason that we look to him as the prescriber of what acts are proper for habituation. In brief, then, good moral character is made up of virtues which are the proper habits of conduct springing from definitely acquired capacities, performed with pleasure, and accompanied by an insight which discovers moral value or the good as an underivable component of experience.

So far we have been speaking of the "practical" virtues in general but it is of importance to remember that for Aristotle these virtues were divided into two sub-groups. First, and most elementary (in the organic or biological sense), there are the truly moral virtues which exist "under the headship of the supreme Moral Virtue of Justice."[2] Second, there is that group "of Virtues

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1 - Here I differ from Grant who says that for Aristotle pleasure is "the sense that any faculty whatsoever has met its proper object." Op. cit., p. 249. Italics mine.

2 - Aristotle, J. A. Smith, Journ. of the British Institute of Philsophy, vol. X, January, 1935.

of a relatively more intelligent or thoughtful kind (the 'Intellectual Virtues')" presided over by the supreme or "sovereign" virtue of Prudence (Phronesis). Both groups are of "practical" virtue and are to be differentiated from the "Theoretical Virtues of the Intellect." some of which have the same names as those of the second sub-group or the "practical" virtues. The ruling virtue of these "Theoretical Virtues of the Intellect" is "Theoretical Wisdom"(Sophia). To make the difference clear, Aristotle speaks of the statesman as the best exemplification of Prudence while the philosopher or "Sage" personifies Theoretical Wisdom. The former has acquired the moral insight necessary for apprehension of the good, and consequently, is able to prescribe those habits and the virtues which follow from them which will lead to happiness in "practical" activity. He not only can point out the way to happiness for the individual in every-day affairs, but to the happiness of the state in its corporate activities. It is the philosopher, however, who has knowledge of those kinds of intellectual activity that lead to the greatest happiness; viz. the happiness of the contemplative and speculative life,- the soul's <u>actual</u> existence. Moral virtue is thus the Final Cause of the soul as existing potentially in the body but it is also at the same time the means to

Intellectual Virtue, and ultimately Theoretical Virtue which is the Final Cause of the soul as existing actually in the body.

An elaboration upon, or rather, an attempt to reduce to a method, the acquired sense of perceiving the good in practical affairs is the doctrine of the mean. He who has Prudence has acquired the ability to choose the mean relative to himself (and in accordance with a rule) as the norm for a greater part of his practical activity. The doctrine of the mean is not new with Aristotle but can be found in Plato.[1] With Aristotle it is important in showing how reason is operative in the control of the desiderative elements of the soul. It may be viewed as Aristotle's attempt at improvement upon the Platonic theory of justice in the soul.[2] The doctrine of the mean is limited in its scope, however, for there are for Aristotle activities that are essentially evil and do not admit of goodness even if done in moderation relative to one's self;

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1 - Cf. the Philebus.

2 - Aristotle's Definition of Moral Virtue, and Plato's Account of Justice in the Soul, H.W.B.Joseph, Journ. of the British Institute of Philosophy, vol. IX, April, 1934, pp. 168-181. "...While I think that Aristotle in his definition of moral virtue was following and trying to improve upon Plato's analysis of justice in the soul, I also think that by the modification he made in it, viz. by introducing the doctrine of the mean, he in fact largely spoilt it."

such are adultery, murder, theft, etc.[1] Where it does apply, it is offered as a practical guide to the attainment of man's proper end, a necessary component of human happiness.

We have just outlined Aristotle's view of human nature, his description of how we know values, and his theory of education. The first we discussed in part in connection with his classification of the sciences but here the point is brought out that Aristotle considered a theory of the universal traits of human nature as integrally related to the problem of defining values, the problem of explaining how we know values, and the problem of educating the young so that they may know values. All three explanations are logically dependent upon the metaphysical potentiality-actuality principle and other fundamental concepts discussed earlier. What is of importance to us at this point is the fact that Aristotle regarded the problems of value theory as including the epistemological problem of knowing value, the socio-psychological problem of the dependence of a definition of value upon a theory of the universal traits of human nature, and the pedagogical problem of devising a theory of education that would facilitate a knowledge of values. The solutions he offered

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1 - Nichomachean Ethics 1107a9-26.

to these problems depend upon basic metaphysical principles and hence his theory of value again displays a high degree of fundamental adequacy whether we find either the solutions to these particular problems or the metaphysical principles upon which they are based acceptable or not.

PART I - Section B

We turn now to a consideration of a modern psychobiological theory of value. It will be our purpose in this division of our study to give in barest outline the positive thesis of R. B. Perry's General Theory of Value. In A Theory of Value Defended, Perry has summarized his theory of value, and using this article as an outline, we attempt now a concise yet clear statement of his theory.[1]

1-Perry finds a particular domain of life that is characteristically referred to in the usage of certain words,- among which "good" and "bad" are the most common. This sphere of human activity, of course, is that which embraces all forms of valuing, positive and negative. Seeking the "general structure" of this domain,

2-He finds that all objects of experience have a "pervasive character" about them which makes them the objects of the favor and disfavor of disposed and acting subjects. These acts or dispositions, as positive (favor) and

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1 - Journal of Philosophy, vol. XXVIII, no. 17, Aug. 13, 1931, pp. 449-460

negative (disfavor) he terms interests. When a thing is the object of such a disposition or act it is said to have value. "That which is an object of interest is eo ipso invested with value."[1]

3-Since interest is a fundamental constituent of value, its nature is investigated. Interest is found by him to be "fundamentally motor or conative" in nature. Interest, in other words, is "action, or a disposition to act, for or against that which I call its object."[2]

4-But interest is also, besides being simply motor-affective, intimately related to cognition. Interest has as one of its constituents, a cognitive element "which is its accompanying expectation regarding the interest's object." There is a variability in the explicitness of this cognitive element or cognition which is directly proportional to interest as it ranges from simple appetite to "deliberate volition;" i.e. the explicitness of cognition in interest is at its minimum in appetite and at its maximum in deliberate volition. When an interest is known by its subject at the time of his interest or by another subject, the formulation of this supervening cognition is known as a "judgment of value" whereas the former or constitutive (of interest)

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1 - General Theory of Value, p. 115

2 - A Theory of Value Defended, p. 450.

cognition[1] is known as an "interest-judgment." As judgments, both may be true or false, "but the interest-judgment need not be true in order that the interest and hence the value of its object, shall occur."[2]

5-Further, interest is capable of quantitative variation in several ways. It is this quantitative variation that gives meaning to the comparative and superlative forms of value (positive and negative); i.e. this quantitative variation of interest gives meaning to forms of value expressed in the "better," "best," "worse," and "worst,". Only one principle of quantitative comparison appears to be applicable to different interests, viz. the principle of inclusion; "principle that a and b are greater than a."[3]

6-Having derived the principle of inclusion from his psychological data, Perry sets up a standard of "ideal of maximum inclusion" which is universal by virtue of its capacity for application to all interested activity. It may be said to be absolute in this sense, viz. the truth

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1 - That is, the expectancy which accompanies an interest and is the expectation of the object of that interest.

2 - Ibid., p. 451

3 - Op. cit., p. 451

of the judgment that applies this standard or ideal is independent of the interest or opinions of the judge who applies it- it is a true judgment regardless who makes it.

7-There are sub-divisions of the general domain of value and there are particular "varieties of interest, and of relations of interest" which are characteristic of these sub-divisions of the realm of value. This is yet to be shown.[1] Such sub-divisions are usually expressed in such specific terms as "rectitude," "beauty," "piety," "sovereignty," and "wealth." That field which is designated by "true" appears (provisionally) not to involve interest but only its constitutive cognitive element which he terms expectation.

8-This system of concepts, along with many other terms that he adopts during the development of his theory, seem to Perry to bring coherence into the rather loose set of terms commonly used in the general domain of value; more so than any other system with which he is acquainted. It also makes possible a correlation of "that group of cultural activities known as ethics, esthetics, religion, politics, economics, and science."

9-Perry admits that his theory does not "coincide either with verbal usage or with common sense" but attempts rather to meet the need felt by those who cannot abide by either of these sources.

10-Lastly, Perry believes that it is not the primary task of the philosopher to apply a standard of value to social phenomena but rather to defend such an application by pointing out the truth and validity of the standard that is applied.

So much then, for the theories of value advanced by Aristotle and Perry. The relatively shorter exposition of Perry's views will be supplemented by further detailed consideration of various phases of his theory in connection with the problems we are now about to discuss. We wish to remind the reader that the following list of problems makes no claim of exhausting the field; once familiar with the technique employed here--the test for fundamental adequacy--he should be able to point out further problems integrally related to the problem of value. These problems are so interrelated and overlap in so many places that one could start with any one and easily step over into a consideration of any one or more of the others. We begin with a consideration of the relevancy of (1) classifying the sciences for (2) determining the proper subject-matter and (3) the proper methodology of value philosophy.

PART II - Section A

In Aristotle we found a recognition of the relations between the problem of value and the problem of classifying the various departments of human knowledge. For him

knowledge was best classified in terms of subject-matter and this principle is not without its merits today. Human conduct was for him the proper subject-matter of value theory. This subject-matter he held was essentially "contingent" in terms of his potentiality-actuality analysis, and since for him the methodology of a given science was determined by the nature of its subject-matter he attempted to devise a methodology for the science of value that could adequately deal with the essential contingency of human nature. In more modern terms, for Aristotle certain aspects of the given determined the methodology to be used by the science dealing with those particular aspects of the given. Objections to his classification of the sciences are usually centered around the question as to how much his classification rests upon his metaphysical analysis of the given. This much seems evident: Aristotle's metaphysical analysis of the given was the basis of his thought and this analysis was taken by him as final; hence his classification of knowledge in terms of this metaphysical analysis he also regarded as final. The modern view of such classifications is that they are speculative, hypothetical and must necessarily vary from time to time with the growth and development of the sciences. Today classifiers proceed by examining the status of the sciences, what they are dealing with in the given, and arrange them according-

ly, rather than by beginning with their own metaphysical analysis of the given and arranging the sciences in terms of this analysis. Hence, what may be an appropriate classification today may not be tomorrow. Further, the simplicity of Aristotle's classification should be at once a signal for skepticism regarding its capacity to show clearly the complexity of the relations between the various departments of knowledge today.

But our concern at this point is not primarily with the value of Aristotle's classification nor with his designation of the proper subject-matter and the appropriate methodology of value philosophy. What we can gain from Aristotle- and what still is true today- is this: If value philosophy is a form of human activity it bears some relations to other human activities; if there is a science or philosophy of value it is plausible to expect that it bear some relations to the other sciences. Briefly, on the fact that value philosophy or the study of value is a human activity and hence is related to other human activities, we can proceed to an investigation of these relations as a means toward defining both the subject-matter and methodology of value theory.

The importance of making clear at the outset both the subject-matter and method of value theory is evident in Perry's General Theory of Value. Perry believes that

a definition of value is best based upon the findings of a "general science of human life" that borrows "both the results and technique of the special sciences of human life." Value theory "profits by what biology, psychology, and the new social sciences have learned about man, and it employs in its own behalf the genetic, comparative, analytical and descriptive methods which they have successfully exemplified." Theory of value is for him an unbiased attempt to bring to light that which is the common characteristic of the multiplicity of values that have arisen in our complex civilization of today. He is not to compare values, but rather to explain this act of comparison itself. The method employed in his investigation is "empirical or descriptive;" or as he explains it, "we are not to start with a category and then find instances of it, but must proceed in the reverse direction, first collecting instances and then analyzing out their common characteristic."[1] This empirical method is not one which will exclude epistemology or metaphysics, but is "empirical and descriptive in the sense that it seeks to discover and to report an order of things which is independent of

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1 - Op. cit., p. 22

the investigator's bias and preconceived ideas."[1] The objective of modern value theory then, is that characteristic common to all values, while its method will be that of the "special human sciences." Since interest as the common constituent of all values is the objective of value theory, the motor-affective life will be the subject-matter of his study.[2] Put more precisely, "....the definition of value will depend upon an analysis of interest itself, not in any qualified or honorific sense, but in the general and psychological sense."[3]

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1 - Ibid., p. 26. Aside from the question of how much necessary order such a method is capable of finding, in such "empirical or descriptive" analyses there are particularly lacking certain advantages which are to be found in the functional type of analysis. Compare, for example, Aristotle's definition of the state (Politics, 1280a32-81a2) with the following: A state is a community of persons more or less numerous, permanently occupying a definite territory, independent, or nearly so, of external control and possessing organized government to which the great body of inhabitants render habitual obedience." J. W. Garner's Political Science and Government, p. 52, 1932.

2 - A more detailed statement of why Perry takes interest as the proper subject-matter of value theory will be considered later. The main reason is that he finds interest to be that common characteristic of all values. He thus classifies the specific subject-matter of value theory as an essentially psycho-biological rather than non-psycho-biological.

3 - Op. cit., pp. 27-28

This narrowing down of the subject-matter of value theory to interest, taken in "the general and psychological sense," leads to a corresponding narrow definition of value. That Perry's final definition of value is fundamentally inadequate will become more evident as we proceed. The most cogent criticism that can be brought against Perry in his exclusive designation of the proper subject-matter of value theory as psychological interest is that of the part-whole fallacy. In Perry is evident the early modern bias toward specialization in scientific procedure. His choice of subject-matter- interests- for value theory is too narrow to include all the elements of his original definition of value; interest being only one of these elements. We have the feeling, in reading Perry, that a great work has been done but that the original problem set up- that of defining value- has only been partially solved. The reason is not hard to find. There are certain psycho-biological aspects of valued experiences and it is important to know just what they are, but knowledge of the nature of values is not exhausted with knowledge of the nature of psycho-biological interests. Hence Perry's contribution to the problem of value is important but we must not overestimate that importance. Perry claims that he used the empirical, descriptive, genetic, comparative, and analytical methods and seeks to profit "by what

biology, psychology, and the new social sciences have learned about man." On the whole there is much more controversy in biology, psychology, and the social sciences on both method and data than in the physico-chemical or natural sciences, yet Perry seems to arrive at conclusions so axiomatic that we are sceptical of the fundamental adequacy of conclusions derived from such controversial premisses. The "special human sciences" are generally very loosely integrated and methodologically not as far advanced as the natural sciences. This fact alone should make one wary of appropriating uncritically either the "facts" or methods of the former for use in constructing a fundamentally adequate theory of value. It seems that the only satisfactory method of arriving at a more exact determination of the relations between value philosophy and the sciences is through direct treatment of the problem of relations between the sciences themselves. By attempting to classify the various branches of knowledge we may hope to discover the place of value philosophy, its proper subject-matter and the methodology appropriate to that subject-matter.

PART II - Section B

We present below a table of the sciences taken from A. C. Benjamin's The Logical Structure of Science (p. 32).

TAB LE I

Table of the S

5 Studies of Humanistic studies	5 Humanistic studies	5 Hu
a Studies of medical studies	a Medical studies	a I
b Studies of play studies	b Play studies	b I
c Studies of economic studies	c Economic studies	c
d Studies of social studies	d Social studies	d
e Studies of moral studies	e Moral studies	e I
f Studies of artistic studies	f Artistic studies	f
g Studies of religious studies	g Religious studies	g
h Studies of studies of reflection	h Studies of reflection	h
	1 Studies of meta.studies	1
	2 Studies of math.studies	2
	3 Studies of phy. studies	3
	4 Studies of biol.studies	4
	5 Studies of human studies	5

B LE I

f the Sciences

5 Human activities		Ideal
a Bodily		a Health
b Play		b Recreation
c Work		c Wealth
d Social		d Association
e Moral		e Character
f Art		f Beauty
g Religious		g Reconciliation with nature
h Reflective	Subject-matter	h Truth
1 Meta. studies	1 Occurrent, qual., rel.	"
2 Math. studies	2 Number, order, quan.	"
3 Phy. studies	3 Force, motion, matter	"
4 Biol. studies	4 Life	"
5 Human studies	5 Human activity	"

How did Benjamin arrive at this classification and how is it to be interpreted? For Benjamin, the important fact about human activities "is that they are all value activities," which "are pursued extrinsically for the sake of ends which are desired intrinsically."[1] Characterizing the basic activities in terms of their ends or ideals we find that there are at least eight which are indicated in the table.[2] This classification does not lay claim for the complete independence of the activities listed. A man's science may become his religion, moral issues are involved in new scientific inventions of high explosives, the scientist admires the beauty of a systematic explanation, etc., etc..

Now reflective activities are many; there are sciences, not just science. The basis of the classification of sciences offered here is a listing of the subject-matters dealt with; i.e. Benjamin classifies the sciences according to subject-matter, as did Aristotle. Benjamin arranges these entities (abstracted from the whole of the universe) according to the principle that "the most abstract is most general, and the most general is the least

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1 - Op. cit., pp. 17-18

2 - Benjamin notes that this listing is "largely arbitrary." It "coincides closely" with the list given by W. G. Everett, Moral Values, p. 182

complex...According to this principle the most abstract, the most pervasive, and the simplest of the categories will be those which are the subject-matter of the metaphysical studies, or at least of that part of metaphysics which is sometimes called critical philosophy; these will include such notions as occurrent, quality, relation, time and space....As we pass to the categories which are decreasingly abstract and general, and increasingly complex, we reach the basic categories of the mathematical studies; number, order, and quantity. On the next level come the categories of physical study in its various subdivisions; force, motion, and matter. The succeeding level is determined by the category of life, which is the subject-matter of the biological studies. Finally on the last level comes the category of mind, or human activity, which is the subject-matter of the humanistic studies."[1]

There is suggested in this table another principle, viz. that as we pass from the metaphysical to the humanistic studies there is an increasing dependence of subject-matter upon the preceding or more basic subject-matter. In the same order, there is a passage from rational to empirical method, from interest in type to interest in individual and also decreasing applicability of the method

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1 - Op. cit., p. 24

of isolation with a decreasing use of mathematical methods. Furthermore, "man not only evaluates nature but also evaluates himself in the act of evaluating nature....Consequently he sets about evaluating them (i.e. his value activities) in that particular way which we call reflecting about them; in other words, he evaluates tham from the point of view of that value which is called truth."[1] Hence we arrive at such studies as medicine, economics, sociology, ethics, esthetics, philosophy of religion, and science of science. In recent years one of the humanistic studies, viz. studies of reflection or science of science has come to be recognized as very complex. Such a study finds a place in the table. "Thus there will be studies of metaphysical studies, studies of mathematical studies,....Following the same discipline, since humanistic studies are of many kinds, there will appear to be studies of medical studies, studies of play studies, and so on,....ending with studies of studies of reflection....i.e. a study of the methods of the logician while studying the methods of the scientist."[2]

Again, the world displays a temporal aspect and thus permits us "to describe its succession of changes" which is history; it permits us "to isolate cross sections,

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1 - Ibid., pp. 25-26. Brackets mine.

2 - Op. cit., ppp. 26-27

i.e. to portray its science;" and thirdly, it permits us "to abstract its enduring features, i.e. to reveal its philosophy."[1] Thus the table of reflective activities must be reproduced in triplicate. Science and history tend toward philosophy and "every philosophy of a given subject-matter tends to become the philosophy of a more abstract subject-matter. Since the higher abstractions possess a greater permanence, the greater concretions may be made to share this permanence through the establishment of correlations. Thus since life exhibits a greater permanence than human nature, we try to find the permanence of human nature in the organism with which it is associated. In the same way, since matter exhibits a greater permanence than life, we try to find the permanence of life in matter with which it is always associated. The same tendency can be seen in the 'reduction of' secondary qualities to primary qualities, and of primary qualities to their measured value; it appears that quantitative features are more permanent and enduring than qualitative features."[2]

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1 - Ibid., p. 27

2 - Op.cit.,p.30. "Numbers and quantities seem to permit integration in a way in which qualities do not. This is a fact and an important one. For by means of the structural relations of qualities to quantities we may explain the former by the latter. In this way qualities become more intelligible by exhibiting their relations to other entities and by sharing the structural relations of these other entities. But the qualities remain. We have no less in the world than we had to start with. Qualities are neither explained away nor reduced. They remain as part of the ultimate furniture of the world." (pp. 327-328)

The table is to be interpreted, for simplifying reasons, in terms of sciences rather than in terms of histories or philosophies. As such, it attempts to indicate "that the humanistic, biological, physical, mathematical, and metaphysical sciences, are all kinds of that characteristically human activity which is called science in general, and that science in general is itself one among various human activities. But it also indicates that the subject-matter of the humanistic sciences is this very field of human activities of which science is one. I have tried to represent this fact by making the columns which end with the number 5 at the bottom continue in the next column at the left starting from the top. Thus 'human activity' at the lower right is identical with 'human activity' at the upper center; so also 'humanistic studies' at the lower center is identical with 'humanistic studies' at the upper left. The subject-matter of each study is indicated in the column immediately to the right. Since the human activities themselves do not have any subject-matter the column representing the various ideals of the activities takes its place."[1]

In the diagram the metaphysical, mathematical, physical, and biological studies are descriptive, "but the

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1 - Op. cit., p. 33

humanistic studies are all normative, for they not only describe the various human activities but also examine the correlated ideals in terms of which the efficacy of the activities is to be estimated; the ideal is in each case a part of the subject-matter;"....as contrasted with the reflective studies (descriptive studies of studies) whose ideal is not a part of their subject-matter. "The economist must define wealth, but the astronomer need not define truth."[1]

Among the omissions from the table is that of psychology. But psychology, in the broadest sense of the term, "is identical with humanistic sciences in general; there are then as many subdivisions of psychology as there are distinct kinds of humanistic science."[2] Further, "certain composite sciences have been omitted simply because they can be analyzed into several more basic sciences."[3]

This classification indicates several points we suggested earlier in this study: (1) it graphically portrays the logical dependence of the subject-matters of the more special studies upon the subject-matter and categories of metaphysical studies; (2) it is a re-statement of the nature of <u>fundamental adequacy</u> not only in terms of the

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1 - Ibid., pp. 33-34
2 - Ibid., pp. 35
3 - Ibid., pp. 35-36

dependent relations between the subject-matters of the various studies but also in terms of the range (according to subject-matter) in decreasing abstractness, pervasiveness, and simplicity, from the metaphysical studies to the humanistic studies. The arrangement is complex but tenable and as its author states, it claims no finality.

PART II - Section C

On the basis of this type of classification of the sciences we may state the subject-matters and methods of value philosophy. The subject-matter of value philosophy ranges from the most abstract problems of human thought to the very concrete and specific problems of daily human conduct. Broadly, there may be said to be three main levels of subject-matter for value philosophy. On its most abstract level, value philosophy is concerned with the logical valuation of the methods and concepts used by the logician and metaphysician of science; the value philosopher on this level logically valuates the philosophy of science. He attempts to answer this question: "What are the methods of reflective thought when it is not functioning in the special sciences but is considering its own standards?"[1] The primary importance of such a discipline becomes clear when we con-

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1 - Philosophy and the Problem of Value, A. P. Brogan, Phil. Rev. vol. 42, 1933, p. 125

sider that "from the point of view of methodology....the problems involved in the logical values are basic, since we are assuming the logical principles involved when we attempt to have knowledge about value in general."[1] Methodologically then, the value philosopher's primary concern is with logical values. In this connection, on the basis of our present knowledge it seems probably that in this pursuit the value philosopher will discover no absolute logical values but only a scale of logical value. No matter what the hypothesis be that the value philosopher is examining it is always "subject to further examination, to further criticism, to further testing of its plausibility."[2] In other words, when the value philosopher is engaged in the "study of the methods of the logician while studying the methods of the scientist" he should accept at the outset, with due modesty, the very probable hypothesis that he will arrive at a gradation of hypotheses ranging in degrees of plausibility and not a definitive statement of the absolute truth or complete falsity of the hypotheses in question.

On the next less abstract level the value philosopher becomes the philosopher of science, critically examin-

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1 - Op. cit., p. 114

2 - Ibid., p. 109

ing the categories implicit in the science, the interrelations of the sciences, the methods of the sciences, and the categories explicit in the sciences. Again his concern is with the logical value of what he is investigating; he attempts, on this level "to determine the meaning of the basic concepts of the science in question with distinct reference to the method which has been employed in the determination of those concepts."[1] And again, it is very probable that the logical value of the scientific concepts and methods examined will fall into a scale of probability or plausibility rather than into the definitive determinations of absolute truth and complete falsity.

On its most concrete level value philosophy is concerned with a multiplicity of specific problems; problems centering around value-situations and judgments of value. On this level value philosophy is still "inherently criticism" and that "criticism is discriminating judgment, careful appraisal, and judgment is appropriately termed criticism wherever the subject-matter of discrimination concerns goods or values."[2] Value philosophy on this level is a "criticism of criticisms." Typical problems are: the reduci-

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1 - The Logical Structure of Science, p. 109

2 - Experience and Nature, J.Dewey, p.398.Cf.also pp.403-404

bility or irreducibility of all values to a common denominator; the existence of educational values, and if existent, their relations to moral values; the meaning and criteria of esthetic value and the place of art in life; the existence of legal values. At this most concrete level value philosophy needs a unified and coherent science that would give a complete account of human nature and of the world, for without such an account it cannot give an adequate definition of values. This dependence of value philosophy upon a unified humanistic science and a unified natural science will be discussed later where it will be discovered that these two prerequisites for a scientific account of value are as yet in the making.

Value philosophy on its two most abstract levels is essentially a meaning-analysis. As such it must rest upon a theory of meaning. On its most concrete level it is, among other things, "an empirically oriented axiology culminating in a deep concern for the ethical and social potentialities of that type of intellectual procedure which we have come to call scientific."[1] In its broadest aspects value philosophy is concerned with: whether we know what we think we know; whether we really value what we think we

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1 - Philosophy of Science and Science of Philosophy, C. W. Morris Phil. of Science, vol. 2, 1935, pp. 280-284

value; "the wisdom and reasonableness of human attitudes;" and with "both the critical analysis of the special and general values and the synthesis of all values into a synoptic attitude to life."[1] On this view the value philosopher is literally a lover of wisdom and his "philosophic vision" or wisdom "is not different from scientific prediction, but is simply the most general expectations appropriate to a system based upon all the data at hand."[2]

Value philosophy then, is much more than a "causal analysis of human attitudes" although it must "use whatever information of this sort the psychologist can give."[3] Its different subject-matters we have briefly outlined above and have also given some suggestions as to its methods in dealing with these various subject-matters. We noted that as a critical meaning-analysis value philosophy needed a theory of meaning. We need also to explain more fully the methods of value philosophy. For both we shall turn to what C. W. Morris has termed "semiotic" and "scientific empiricism" after briefly summarizing the results of this second

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1 - Philosophy and the Problem of Value, p. 115

2 - Philosophy of Science and Science of Philosophy, p. 285 Cf. also Process and Reality, A. N. Whitehead, p. 19

3 - Perry's General Theory of Value is just such an analysis and hence is limited in scope. Philosophy and the Problem of Value, p. 115

division of our study and indicating the integral relations between epistemology, metaphysics and value philosophy.

PART II - Section D

Taking our cue from Aristotle, we began with the hypothesis that if the study of value is a human activity it should bear some relations to other human activities; if there is such a thing as a study of values it is plausible to suppose that it is interrelated with other studies. We then presented a classification of human activities which brought out the various interrelations between these activities and also showed the logical dependence of the more concrete studies upon the fundamental or metaphysical studies. With this table as a guide we defined the subject-matter and briefly, the methodology of value philosophy on its most abstract level as being respectively, philosophy of science and critical meaning-analysis. We stated also, that value philosophy is concerned with more concrete problems but maintained that no philosophy of value could be fundamentally adequate unless it took cognizance of the fact (and acted accordingly) that methodologically, logical values[1] are primary to all other types of value.

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1 - It should be noted that what is maintained is the methodological, not metaphysical, primacy of logical values. Aristotle, as a rationalist, would maintain both the methodological and metaphysical primacy of logical values.

So much for philosophy of value on its most abstract level. On its next less abstract level value philosophy carries on its critical meaning-analysis among the special sciences; this usually is termed "philosophy of science." In addition, however, to critically analyzing the meanings of scientific methods and categories with the view to determining their logical value, value philosophy should, on this level concern itself with "the ethical and social potentialities of that type of intellectual procedure which we have come to call scientific." What immediately follows, however, is a consideration of certain aspects of the "logic" and metaphysics of science; the particular aspects under consideration being regarded as of more than casual relevancy to value philosophy on its most concrete level. It should be clear that an adequate philosophy of value will give an account of how we know values as well as an account of the existential nature of value. Hence the necessity for a philosophy of value to supply a theory of knowledge and a metaphysics. That value philosophy, epistemology, and metaphysics are integrally related can be seen by considering the theories of value offered by Aristotle and by Perry.

PART III - Section A

In our summary of Aristotle's theory of value we noted that he approached the problem of value ontologically, metaphysically dividing the given into the categories of Form and Matter. Then, by means of his potentiality-actuality principle along with a teleological analysis of causation, he defined value as completion of process. This type of procedure has been carried on by those philosophers who contend that philosophy is the proper means to a knowledge of existence. In most instances the philosophical method of arriving at a knowledge of existence has been either poorly defined or not defined at all. The position taken here and which indicates our variance from Aristotle and traditional metaphysics is the following: Philosophy has no special equipment to know the nature of existence nor any monopoly on the means of acquiring that knowledge. The philosopher must turn to the scientist for a knowledge of existence. As Brogan puts the matter: "Philosophy must treat the use of the categories of existence and non-existence from the logical or epistemological point of view. That is, philosophy treats the categories of reality or existence as elements in the process of knowledge. A claim to have knowledge about existence raises the question of logical value in that claim, but the facts of existence about which we

claim to have knowledge are matters for ordinary experience or for the special sciences rather than for philosophy."[1] Aristotle also approached the problem of value through logical and epistemological considerations. This is shown in his classification of the sciences, his descriptions of the methods appropriate to the subject-matters of the different sciences, and his account of how we know value. In the latter, knowing values consists of intuiting them in daily affairs while inductive scientific knowledge is also for him a form of intuition. Both processes of knowing involve a literal intellectual grasping of independently existing universal forms or essences. This we shall have occasion to differ with when we come to a discussion of the problem of meaning in modern thought. Suffice it to say that for Aristotle the problem of value was integrally related to the problems of logic, epistemology, and metaphysics. For him these problems could not be treated in total isolation from one another; i.e., for him the problem of value could not be solved independently of a theory of knowledge and a metaphysics. What he advanced as solutions to these problems is not our primary concern. What is important in his thought, for it is still true today, is his recognition of the fact that a

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1 - Philosophy and the Problem of Value, p. 111

fundamentally adequate theory of value involves an adequate epistemology and metaphysics. The integral relations between these problems is further illustrated in a consideration of Perry's theory of value.

For Perry[1] value is "any object of any interest." Stating his thesis in the form of an equation, he says "x is valuable = interest is taken in x. Value is thus a specific relation into which things possessing any ontological status whatsoever, whether real or imaginary, may enter with interested subjects."[2] Value for Perry, then, is a relation between a particular kind of subject and any existent object. Perry tells how he derives from his main thesis what he considers to be the proper subject-matter of value theory and the method of studying that subject-matter. "In short, interest being constitutive of value in the basic sense, theory of value will take this as its point of departure and centre of reference; and will classify and systemize values in terms of the different forms which interest and their objects may be found to assume."[3] Even if we allow that interest is "constitutive of value in the basic sense" it does not follow that theory

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1 - General Theory of Value, Ch. V, Longmans, 1926

2 - Ibid., p. 116. Italics mine.

3 - Op. cit., p. 116

of value should limit its subject-matter to interest. If value is a relation between a subject and an object, are there not at least three things to be adequately accounted for? Perry's arbitrary choice of subject-matter would be justified if, in the course of giving an account of that subject-matter, he adequately accounted for the other two equally important factors. But this he does not do.

A restatement of Perry's thesis is to be found in his further definition of values as "functions of certain acts of living mind to which we have given the name of interest."[1] Here again, we note that emphasis is placed upon the activities of the subject. In other words, although there is a definite relation between a subject and an object when that object is valuable for the subject, the nature of that relation is solely determined by the disposition, attitude, approval or disapproval of the subject; the object is merely the stimulus which sets off a motor-affective response in the subject- a distinctly Watsonian behavioristic account. What is totally ignored is the possibility that the very nature of an object, acting as a stimulus, may determine in some ways the nature of the response of the subject. If we agreed that value involves a relation between a subject and an object we

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1 - Ibid., p. 139

would still insist that that relation is determined both by the existential nature of the subject and the object. Further, we would insist that an adequate account of this relation between subject and object could only be arrived at through an adequate account of the existential nature of the object as well as of the subject. Nowhere in the General Theory of Value do we find an adequate account of the existential nature of the object. Rather, one must be content with a description of it as "things possessing any ontological status whatsoever, whether real or imaginary."[1] If still not satisfied the reader is told that this theory of value rests upon a realistic theory of knowledge which asserts that "what is known is independent as regards its existence and essential nature, of the act or state of knowledge....A value acquires existence when any interest is generated, regardless of any knowledge about it. A value will cease to exist when its own sustaining interest is destroyed or altered; but it does not cease to exist simply because it is cognitively excommunicated."[2]

If we grant that value is a relation between a subject and an object, that the existence of the object is

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1 - Op. cit., p. 116

2 - Op. cit., pp. 139-140

independent of the act of knowing it- which certainly is not a complete account of the existential nature of the object- it does not follow that we can know what value is through a knowledge of the psycho-biological activities of the subject. If we can know what value is by simply knowing the nature of the subject and its activities, why define value as a relation, much less a relation to an object? Perry undoubtedly believes that by defining interest as a psycho-biological activity of the subject and that by knowing what are the different phases and stages of interest, as well as their relations to one another, it is possible to know what value is. This evidently blinds him to the obligations that he takes upon himself in his original definition of value with the result that he fails to meet these requirements of his original definition. Here we are concerned with one of the elements of Perry's original definition, viz. the object. Perry's account of the object amounts to the assertion that objects can exist independent of our knowledge of them. This we take to be an inadequate account of the existential nature of an important element in his conception of value. Therefore, he fails to give a fundamentally adequate theory of value. In his "Analysis of Cognition" (pp. 306-343) Perry takes conscious experience in its broadest sense as the subject-matter of cognition so that his account is essentially

introspective; i.e. cognition is treated by him as a psychological process related to the psychological processes of motivation or what he calls "interests." Knowledge is of consciousness, which in some unexplained way is related to reality in such a manner that knowledge of conscious experience in all its variety, is knowledge of reality. Let us suppose that consciousness is our only source for knowledge of reality, but what is the relation between consciousness and reality? Perry does not say. His metaphysical principles are implicit in his theory and must be inferred. Dissatisfied with Perry's account of the object, we shall offer our own views on the matter later.

Since interests, as "acts of living mind," are the sine qua non of value, what then, is their nature? Perry answers this question in terms of modern biological theory. The controversy over vitalism and mechanism in biological theory is for Perry important, for out of this conflict has come the emergent principle, which for Perry is not only a means of reconciling teleology and mechanism, but also an explanation of the origin of "acts of living mind." The principle of emergence states that in both animate and inanimate nature there are instances in which a particular juxtaposition of certain physico-chemical elements gives rise to a number of synthetic qualities characteristic of

the whole but unpredictable from the properties of those elements of which the whole is synthesis. Mechanism then becomes for Perry the name attached to analytical properties of emergents or rather, the term applied to that method of analysis which cognitively abstracts from an emergent the properties of its constituents as qualities of the respective parts of that whole as parts and as qualities different from the properties of the emergent as a synthesis or whole. "Per contra, teleology would be regarded as the purpose of the conditions from which it emerged;"[1] viz. the analytical properties. "So that sooner or later purpose has to be conceived not as organization simply, but as that special mode of organization in which occur such specific processes as need, desire, invention and contrivance. In other words, life is not purposive by virtue of being emergent or organized; but organization is purposive in the particular case of life by virtue of certain special properties which emerge."[2] Such remarks sum up Perry's account of mind. That it is an incomplete account lacking a broader epistemological and metaphysical background is evident. We shall not, however, attempt a detailed criticism of Perry's account of the subject at this point but prefer to present our own account later.

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1 - Op. cit., p. 152

2 - Op. cit., p. 155

We need not labor the point any longer that theory of value is vitally concerned with epistemological and metaphysical problems. Having admitted our reliance upon the sciences for systematic knowledge of existence, the problems that press most at this point are: "What constitutes an adequate theory of scientific cognition?" and "Would an adequate theory of scientific cognition supply us with an equally adequate account of how we know values?" The fact that there <u>are</u> values or valued experiences would seem to indicate a connecting link between these two problems. To solve the first problem we should have recourse to philosophy of science. By giving an epistemology and metaphysics for science we should be able to throw light on what would constitute an adequate epistemological and metaphysical basis for a philosophy of value. We turn now to philosophy of science or value philosophy on its less abstract level as understood by the scientific empiricist; in what follows we shall begin with the theory of meaning which we stated earlier was necessary for value philosophy in its critical meaning- analysis- on whatever level of thought that analysis may be applied.

PART III - Section B

The central fact of scientific empiricism is its theory of meaning. According to C. W. Morris[1] there are three dimensions of meaning; "....the meaning of a term is completely specified when it is known what objects the term designates, what expectations it produces in persons for whom it has meaning, and what its connections are with other terms in the language of which it is a part." These three dimensions of meaning are the existential meaning, the pragmatic (biotic) meaning, and the formal meaning of a term. They are interrelated in such a manner that it is possible to state the meaning-situation from either the object pole, the life pole, or the formal pole and all such statements when analyzed, prove to be equivalent in meaning. Any statement is open to investigation from either of the three poles.[2] The interrelations of these three dimensions is evident in an elementary examination. The formal structure of language is determined in part by the "empirical material encountered" and in part by our purposes; such an interpretation avoiding extreme conventionalism on the one hand and complete isomorphism of linguistic structure to the realm of events on the other. Again, what we symbolize

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1 - Philosophy of Science and Science of Philosophy, p. 278

2 - Semiatic and Scientific Empiricism, p. 10

depends partly upon our purposes and partly upon the language we have at hand. Further, we express our purposes in a language having a formal structure while at the same time we must respond to the characters of things as we actually find them.

Meaning is relational, "the relation being the function or office of serving as a sign of something else."[1] Further, we may distinguish between referential and immanent meanings: in the former one thing signifies another; the latter are "collapsed referential meanings" and arise "in consequence of the repeated successful outcome of referential or evidential meanings."[2] When events have "their potential consequences identified with them as their properties (as in the case of practically anything designated by a common noun)" they acquire meaning. When we speak then, of perceiving objects these objects are to be understood as events that have gained immanent meaning in virtue of their repeated previous connections with other events. "It is in this way that objects are perceived: what is existentially given is a fragment out of an organized structure, the fragment meaning the structure

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1 - Meaning and Existence, J. Dewey, Journ. of Philosophy, vol. 25, 1928, p. 352

2 - Ibid., p. 349

and being clothed with its potential consequences and connections."[1]

An important aspect of all meanings is their potential intersubjectivity; from a theoretical point of view any person could exhaustively determine the meaning of any sign. Although there are private or personal aspects of the experience of meaning, meaning itself is not private. Experience, however, is not knowledge and as such, not meaning. Further explanation of the potential intersubjectivity of all meanings involves viewing mind as relational, functional, emergent, instrumental. Mind in the sense of "experience," "the given," "consciousness" may be regarded as an emergent from an organism-environment-interaction-situation;[2] "while mind in the sense of 'thought of,' 'conscious of,' 'intentional reference to' may be equated with the symbolic process, i.e. with the

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1 - Six Theories of Mind, C. W. Morris, pp. 300-301. Cf. Locke, An Essay Concerning Human Understanding, Bk. II, ch. XXV, section 7

2 - Cf. The Nature of the 'Given', P. A. Schilpp, Philosophy of Science, vol. 2, 1935, p. 136: "Qua 'given' anything in what it is because of its own inherent nature (whatever that may be, though perhaps totally unknown to us) plus the way in which it has to appear to the organism (or mind) to which it is 'given' because of the nature of the receiving apparatus which this organism possesses."

capacity of certain organisms to respond to events as signs. The mental in the second sense thus becomes the meaningful, and that in turn the symbolical. But since meaning is without residue potentially intersubjective, mind in this sense contains nothing that is intrinsically private even though much that is de facto private. Experience, of course, has its private aspects: one person's toothache is not another's. Yet these facts do not mean that experience itself is without social or intersubjective aspects."[1]

Past contentions as to the empirical nature of meaning have been attended by individualism and a failure to justify the realism of science.[2] Past individualism in empiricism made it easy to go from the statement that all meaning is empirical to the contention that "one cannot mean what he himself cannot personally experience." Take for example, the statement "objects which I can never experience." Formally this has meaning and pragmatically as well; in the latter, it performs a "regulative function in individual and social conduct, as the whole institution

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1 - Semiotic and Scientific Empiricism, p. 13. Cf. Objectivity in the Social Sciences, E. Bisbee, Philosophy of Science, vol. 4, 1937 for an account of the social scientists' present conception of objectivity.

2 - Pragmatism and Metaphysics, C. W. Morris, Phil. Review, vol. 43, 1934, pp. 549-564

of life-insurance evidences."[1] Nevertheless, if I am to accept this statement in terms of empirical evidence it must be in terms of evidence that I can control. Granting "that for each knower experience provides the basis and criteria of all knowledge" this "does not imply that the object meant is an object of actual or possible experience fof each knower....we can only mean, psychologically, that we can expect or imagine, and expectation and imagination are dependent upon what has been encountered." Hence non-experienced objects are better characterized as "non-given members of a class of objects whose nature has been empirically determined. Even the belief that there are kinds of objects yet unencountered rests on the fact that objects unknown at one time have become objects of empirical investigation at a later time."[2]

Contemporary scientific empiricism differs from past empiricism in two more ways: (1) past empiricists- such as Locke and Hume- erroneously adopted the rationalistic criterion of science as logically demonstrative knowledge.[3] In so far forth that the formal and natural

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1 - Semiotic and Scientific Empiricism, p. 13

2 - Op. cit., pp. 13-14

3 - The classic expression of this view is to be found in the Posterior Analytics.

sciences are thought of as formal systems, this criterion is applicable. As a matter of fact however, what we call the knowledge of the natural sciences varies from time to time so that at any given moment we can only say that the knowledge in the natural sciences is simply the then existing body of relatively stable and socially verified propositions. To be an empirical realist is merely to ask admission to the body of such propositions. And (2) on the contention that all meanings are potentially objective the scientific empiricist occasions no difficulty in using the reports of others both in science and in theory of knowledge; in principle it is possible "to find out what other subjects mean and to check the truth of their affirmations, remembering always that to verify that x had such and such an experience does not require having the experience oneself. The fact that no postulate is required as to the actuality of communication suggests the epistemological significance of a critical semiotic."[1]

The articulation of the formal science within scientific empiricism "merely involves grounding the formal sciences upon semiotic and seeing them as specializations within the general study of meanings." In the formal sciences attention is restricted to the formal dimension of meaning,

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1 - Semiotic and Scientific Empiricism, pp. 14-15

the symbol combinations studied being abstracted from their existential and pragmatic meanings; "their task is to see what symbol combinations follow from other initially accepted symbol combinations through the performance of accepted rules of operation." In virtue of such an abstraction a science may be spoken of as formal. Nevertheless, the study of any of the dimensions of meaning is an empirical process; determinations of the analytic or synthetic nature of propositions, the consistency of systems, and determinations of formal meaning in general "are (when certain qualifications are ignored) synthetic propositions, and true or false in the same sense in which propositions about things other than symbols are true or false."[1] From this point of view the formal sciences are brought within a unified science, their importance is recognized as instruments and objects of investigation, but they are not hypostatized. The rationalism of the scientific empiricist is methodological, not metaphysical as was the case with Plato, Aristotle, and others.

Semiotic is a proposed expansion and more definitive statement of what we suggested earlier in this study as the "test for fundamental adequacy." It is "the study of each of the dimensions of meaning and their interrelations."

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1 - Ibid., pp. 15-16. Cf. also, Philosophy of Science and Science of Philosophy, p. 278

Still more specifically, "the science which would result (semiotic) would itself have the three dimensions of meaning here isolated. Empirically and existentially its object would be the significatory process; formally it would be a symbol system with a syntactical structure capable of axiomatic presentation; pragmatically it would be an intersubjective body of propositions capable of numerous applications. Itself a science, it would at the same time be the novum organon of the special sciences and of the philosophy of scientific empiricism."[1]

PART III - Section C

How would the scientific empiricist explain scientific cognition or judgment of fact? Benjamin has defined scientific cognition in introspective psychological terms as "a composite awareness which includes acquaintance[2] with a realm of events, awareness of a system of symbols referring to a realm of events, and awareness that the realm of events referred to by the system of symbols is precisely that given in direct awareness."[3] This statement of the

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1 - Op. cit., p. 12. Brackets mine

2 - An Introduction to the Philosophy of Science, where acquaintance is defined as "an act of direct and non-transforming awareness." (53); "....There probably is no such thing as a bare awareness of an event without some awareness of a symbol which is applicable to it." (p. 55)

3 - Op. cit., p. 55

cognitive situation Benjamin bases upon an empirico-operational theory of meaning, the latter conceived as essentially two-dimensional; i.e. his treatment of scientific cognition is wholly in terms of the existential and formal dimensions of meaning. When Benjamin however, makes this distinction between descriptive and explanatory techniques in scientific cognition, viz. that "in description one endeavors to symbolize the obvious features[1] of events, whereas in explanation he tries to represent their less obvious features- their causes and effects, their constituents, their appearances under different conditions, and so on,"[2] he is stating in different terminology what the scientific empiricist means by the behaving of the organism to given events as implicating the non-given. To rephrase his account in more fundamental terms, we would say that scientific cognition is a complex process within nature, which process consists of the emergence of a given from the interaction between a complex organism and its environment; the expectant or anticipatory behavior of the organism to what is given as implicating something not given; and the satisfaction of that expectancy or anticipation as a result of behavior guided by what was taken as

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1 - Cf. The Concept of the Variable-Given, A. C. Benjamin, Journ. of Philosophy, vol. 33, 1936, p. 225

3 - Ibid., pp. 55-56

implicated in the given ending in "consequences which appropriately fit into the other consequences which follow independently"[1] of the initial given being given for that particular organism.

Now the common element in judgment of fact and judgment of value lies in the biotic or pragmatic meaning of any given taken as symbolic. In judgment of fact the organism behaves to the given as implicating, suggesting a something not given; the expectancy in judgment of fact is (ideally) of mere future givenness. Judgment of value includes all this and more. In judgment of value we not only behave to what is given as involving some future given but our anticipation is emotionally toned. Anticipation is emotionally toned in judgment of fact also but this emotional toning is subordinated as much as possible;[2] in value judgments the emotional tone of our anticipation plays a much more important part. Nevertheless it is illegitimate to separate "reason" and "science" from "emotion" and "value" as is suggested in the writings of Benjamin, Ogden and Richards, and demanded in the writings of the logical

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1 - Experience and Nature, J. Dewey, p. 323

2 - There is the story that Newton in anticipating the implications of a new physical or mathematical hypothesis was often so emotionally excited that he would have to turn over to his assistants the actual working out of these implications. I am indebted to Mr. C. W. Morris for this anecdote.

positivists. In value judgments we not only anticipate a future given but desire or do not desire that potential given in so far as its occurrence will satisfy or frustrate our desires. To both the cognitive- and value-situation the organism comes equipped with impulses and demands. In the cognitive-situation the meaning of a given, taken as symbolic, is sought primarily in its existential and formal dimensions; the pragmatic dimension is there in scientific prediction but hardly more. In the value-situation the meaning of a present given, taken as symbolic, is sought primarily in its pragmatic dimension-what purposes it will fulfil, what impulses or interests it will satisfy; the existential and formal dimensions are there only in the anticipated "thisness" and "whatness" of the implicated non-given.[1]

This approach through a meaning-analysis of the relations between judgments of fact and judgments of value may be carried further. The greater the number of existential and formal references, the greater the number of pragmatic references of a given. The more we know about the existential nature of an object the better are we able to adapt it to our purposes. It follows also that the greater

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1 - The "thisness" is the individuality of the given, its "whatness" is its universality. Cf. Symbolism and Truth, R. M. Eaton, ch. III

the number of purposes to which we put an object the more knowledge we are apt to gain about the existential nature of that object. Hence we say that both the psychologist and the clever politician know human nature, both the scientist and the craftsman know the objects they are dealing with. In the former the emphasis is placed upon the existential and formal dimensions of meaning whereas in the latter emphasis is placed upon the pragmatic dimension. In fact, however, the three dimensions are always all present. But this is an analysis restricted to a very broad view of the matter. We do desire some things and abhor others, we like and dislike, seek and avoid, but there is really no judgment of value on this level.[1] It is when we prefer this to that, satisfy some impulses before others, that we apply a stamdard and make value judgments; we choose objects that will satisfy certain interests before others. Hence arises the problem of discovering those objects that have the capacity of satisfying those interests we want satisfied. This leads to the still more comprehensive problem of discovering what our impulses are, what objects have the capacity for

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1 - Cf. A Study in the Logic of Value, M. E. Clarke, ch. III

satisfying those interests,[1] and what interests should be satisfied before what other interests. The answers to these problems are suggested in a unified knowledge of the universal traits of human nature and universal laws of human conduct and a unified knowledge of the universal laws of objects in relation to organisms in a society. Once we had this knowledge we should know what men really value and how they may be aided toward accomplishing those values. That we have at present no such knowledge and what might be done towards acquiring it will be discussed later. Here we are concerned with the integral relations between judgments of fact and judgments of value as revealed in the light of semiotic and scientific empiricism.

What a man seeks in the world, what he strives for is dependent in a large part upon what he knows the world to be or what he believes it to be. Concomitantly, before he can make a value judgment he must know himself or have

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1 - "That a certain pile of stones should be the realization of what we mean by a municipal auditorium is due to its relationship to men in a social order, and even the special relationships abstracted from all others by the scientist so as to give an 'impersonal' account of how those stones are related to the rest of nature, were perhaps selected because knowledge of them permitted that control of nature by which valued experiences could be actualized." Some Problems for the Relativist, A.G. Ramsperger, Journ. of Philosophy, vol. 32, 1935, pp. 595-596

some beliefs about himself, i.e. what interests he seeks to satisfy before what others depends partly upon his knowledge of what his various interests are or, as is the case in the majority of instances, what he believes his interests are. This is, in both situations, belief about or knowledge of fact. If the end of scientific cognition is true knowledge of fact, then the common element in judgment of fact and judgment of value becomes obvious when we review such considerations as these. Knowledge about or a set of beliefs concerning both the nature of the objective and subjective aspects of experience, the common and the private aspects of the given, is both logically and temporally prior to a judgment of value. The truth of such knowledge or beliefs will determine the validity and efficacy of the valuations or judgments of value made. If then, we are to rely upon the methods of scientific empiricism for the knowledge necessary for valid and efficacious value judgments it follows that since the former lays claim only to knowledge of an increasingly higher degree of probability, then value judgments based upon that knowledge can only claim an increasingly higher degree of validity and efficacy. If it seems more plausible that there is only a scale of logical value rather than any absolute logical values, then it seems more plausible that there is only a scale of value in general rather than any absolute values

in general. The increasing efficacy of our value judgments is dependent upon the increase in truth in our knowledge of man and the world in which he makes value judgments.[1]

The primitive intimacy of cognition and valuation may be stated differently. Early behavior to the given as symbolic might be described as a process of interpretation, involving the taking of a complex attitude both cognitional and valuational in nature. Only later sophisticated analysis has made possible the differentiations we have made between the cognitive and valuative elements of this experience. Their fusion is understandable when we consider the hypothetical nature of both cognitive and value judgments; the truth of the former and the efficacy of the latter are open to constant verification depending upon the changing nature of objects and the changing nature of subjects. For example, it is a common occurrence that on the basis of a value judgment earlier made we may habitually seek the object valued in the initial judgment without considering in each successive instance the status of our interest. Self-observation in a subsequent instance most probably

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1 - Cf. Logic, W.E.Johnson, Part III, pp. 102-126 for a discussion on the causal relation between cognition of fact and judgment of value.

will reveal that our interests are not exactly the same as they were in the original value judgment. Analysis of the object in this same later instance most probably will reveal that the object sought, taken as identical with the original object, has in fact changed by having taken on in the interim a new set of cognitive meanings. Fresh introspection and a renewed scientific analysis of habitually valued objects then gives rise to a reconstructed set of value judgments or a change in personality. On the other hand, this two-fold investigation of a habitual value judgment carried on frequently enough will reveal no discernible decrease in the efficacy of the original value judgment.

Although no technique has as yet been evolved for a reexamination or even an original examination of value judgments made, there are suggestive approaches in what we have called semiotic.[n] Take the proposition, "You ought to have your children vaccinated." The logical positivists have attempted to reduce such statements to "is" statements. Such attempted reductions as they present never succeed in wholly eliminating the valuational factor involved without distorting original meanings. The scientific empiricist and student of semiotic sees the illegitimacy of such attempted reductions and attempts rather a three-dimensional meaning-analysis of value judgments

which retains the biotic meaning-dimension. Theoretically, the formal meaning of the above statement could be shown by indicating the syntactical relations of its various elements to the English language. Its existential meaning could be isolated by showing that the same statement translated into different languages refers to the same facts in experience. The biotic meaning is much more complicated. To the person interested in the health of his children the operations referred to by the statement are desirable in that they lead to desirable consequences. To the person indifferent to the health of his children, although the statement may signify certain operations to him which he understands, these operations may be of neither a desirable or undesirable nature; or another person may even interpret the statement merely as a command, carry out the operations indicated, without desiring to do so save to avoid possible future punishment. In other words, the biotic meaning of any statement signifying a value judgment may vary almost indeterminately from person to person. The only way of bringing order into such a situation- assuming that the cognitive factors are the same- would be to know what interests are universal among men-in-society-surrounded-by-a-natural-environment. The studies of anthropology, comparative ethics, comparative religious studies, and similar studies have been of assistance along

these lines. We do know that although practices differ radically the world over there are some things which have involved the value judgments of men no matter where they may be in space and time; such problems as those surrounding the concept of property, sexual relations, treatment of the old, education of the young, etc., These similarities are the important facts of such comparative studies, not the conventional differences they reveal. Needless to say, our knowledge in these fields is by no means complete; what is worse, what we do know about these things has not yet been properly coordinated and utilized in an attempt systematically to lay bare the universal interests of men.

An approach to this last problem has been suggested by G. H. Mead. According to him, the human organism as impulsive seeks the consummation of its own interests. But no man is born alone. From birth his interests conflict with the interests of others. At this primitive stage we may speak of the biologic individual." Just as the organism living in a society attains mind through the agency of language, so does it acquire a "self" through the same agency. The minded organism acquires a self to the extent that he takes the role of the other, looks back at himself (responds to himself) from the perspective of the other, and thus becomes an object to himself. When working or playing with others the minded organism must take the roles

of all the others involved in order to be able to work or play with them. The taking over and organizing of the attitudes of all others involved in the common activity constitutes the "me" of the self. But the original principle of action and impulse, the biologic individual, remains and this constitutes the "I" of the self. The "me" reflects and is nothing beyond the reflection of the social structure, whereas the "I" as the biologic individual is a constant source of change in the social structure. The organism then, with the proper biological equipment, gets a mind and a self through a social process; impulsive non-moral homo sapiens becomes a rational and moral animal.

For Mead, the value of an object resides in its capacity of satisfying an interest; as such value exists neither in the object alone nor wholly in an emotional state of the subject. The nature and existence of the valued experience is determined by the nature of the object and the nature of the subject, just as the given for scientific cognition is determined by the interaction of the organism and its environment. But interests conflict and hence the need for a standard of value. Now an esthetic object so affects the emotionally toned impulses of the organism as to bring about their fusion into a harmonious whole; such an object has esthetic value. It makes possible through the kind of stimulation it affords, the fusion

of the "I" and "me" and hence a harmonious balanced self. The function and end of the moral life is to bring about through the exercise of reflection a like "integration of impulse at the level of interacting selves."[1] The self as the "I" or biologic individual is impulsive and seeks the satisfaction of its impulses. As the "me" the self is social and in taking the attitudes of others has become these others and seeks the values of these others. When the "me" seeks the values of all others (the generalized other) it seeks the values of the social process itself. The self as social has social demands which it seeks to express just as much as its biologic impulses. As Morris states the matter, "moral ends are social ends because in the first place the only standard for impulse that impulse makes possible resides in the answer as to whether the impulse in question feeds or dies on its own satisfaction, and whether it expands and harmonizes, or narrows and defeats, other impulses; and second, because the self, as a social being, must be concerned within and without with a social harmony of impulses."[2] This does not mean that the morally good man must seek some vagary as

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1 - Mind, Self and Society, intro., p. xxxii

2 - Op. cit., intro. pp. xxxii-xxxiii

"the good of society in general." It means rather, that to be morally good one must act intelligently and socially, observant of the values of others as well as those of the self, in each particular situation. What is right is so relative to the situation but it has universality and objectivity in that it demands the assent of all rational beings. A society of selves acting in this manner would not have an authoritatively defined set of values which it would seek to maintain in the face of advancing scientific knowledge; for as defined, moral conduct is the constant reinterpretation of each situation in the light of advancing scientific knowledge.

Now such an account affords a norm but it is questionable whether the norm suggested would or should always be preferred. Briefly, does such an account afford a universal principle of preference? It seems quite conceivable that one could know what his individual and social interests were at a given moment, as well as what objects were appropriate to the satisfaction of those interests so as to integrate them into a harmonious self, yet at the same time prefer something else. In fact, the achieving of a harmoniously integrated self, the concomitant satisfaction of personal and social interests, might even be viewed as a disvalue when compared with something known to be at present idealistic or transcendent yet preferred;

we must make some account for geniuses in the realm of values. Further, can we properly speak of those more individualistic aspects of the self (the "I") as biologic? Are not some of the most personal (in the sense of identifiable with only a particular individual) interests characteristically lacking in direct reference to the so-called biological drives? Many exalted purposes are determined by something more than a weighing and balancing of personal and social interests. The harmony suggested by Mead might well be characteristic of the moral man but certain esthetic experiences suggest that there may very well be levels of harmony within the self that eventuate in consciousness of neither individual nor social satisfactions. Deliberation at moral crossroads involves a balancing of the values of others with one's own values but there is often a time when the final act of will follows upon an insight that goes beyond such considerations of the balancing of interests and satisfactions. Perhaps the present debate as to whether we should speak of "discovering" or "inventing" the new hypotheses of science[1] will throw light on the nature of fresh valuational insights. Shall we say that such moral and esthetic insight beyond what are taken as socialized and intelligent values of the present consists of a

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1 - Cf. An Introduction to the Philosophy of Science, Ch.IX

process of discovery or a process of invention? This much seems certain, whether discovered or invented, their confirmation by others is the only ultimate criterion of their validity. As perfections or ideals these values contain an element of the not-yet; they are demands for the realization of that which is not yet present. "The not-yet, by its fiat, is yet-to-be"[1] Although probably rooted in organic demands these demands for absolute perfection most often recognized as unattainable, are apparently incapable of reduction to biological drives. The immanent meanings of such ideals is explicable in most instances by changes taking place in the self or a society of selves (there being social ideals) brought about by changes in knowledge or culture and the environment but there remains a spiritual residue of constant striving for growing perfections taken as absolute. This fact of belief in absolute perfections does not necessarily imply the existence of the latter as Plato believed. In fact our knowledge of them depends upon their being taken distributively; their growing immanent meanings are dependent upon an increasing number of references to their imperfect empirical instances.

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1 - The Notion of Perfection, R. A. Tsanoff, p. 6. Proceedings of The American Philosophical Association, Western Division, April, 1938

It is of the essence of ideals that they be taken as transcendentally authoritative yet our knowledge of them increases only with our experience of their particular imperfect instances.

A principle of preference then, is the seeking of those objects that have the capacity for bringing about an integrated harmonious self. But harmony of individual and social interests is only one level of harmony and applies primarily to daily affairs among men; as we seek to act morally in society we attempt to further our own interests and the interests of others so that no conflict of interests ensues. In crucial situations, however, we call upon our ideals of absolute perfection which we take as authoritative and transcendent of experience. These ideals, though rooted in demands that have emerged out of an organism-environment-situation defy complete reduction to biologic, individual, and social values yet our knowledge of them rests upon the concrete experiences that are their imperfect particular realizations. As the meanings of these specific experiences vary from occurrence to occurrence the immanent meanings of our ideals change though we seldom believe this in practice, believing rather that our ideals are stable, secure and absolute in their perfection. Even retrospection upon these ideals and their evolution seldom yields any satisfactory knowledge of what

they were in the past, or how and what particular experiences affected their evolution to their present meanings; the effects of the deepest experiences upon ideals are often only dimly known. Hence, in daily valuations our ideals appear as perfect and absolute values which are often recognized as unattainable yet demand realization.

Whatever be the exact nature of the transition from particular value judgments to hypostatized ideals of absolute perfection and the subsequent effects of particular value-meanings upon such habitually applied principles of preference as are maintained in ideals, it seems certain that no simple objective or behavioristic account of the development and reciprocal relations between interests or biologic impulses will explain these important phases of values. There does seem to exist, however, an intimate relation between what might be regarded as universal interests of human nature, properties of objects capable of satisfying these interests, and lasting individual and social values or ideals. In a word, if there is an objective standard of values it seems very probable that we should discover such a standard by knowing what most men value and what objects have the capacity for making possible the realization of these values. Knowing this would certainly not give us an explanation of the

creation of new individual and social ideals but we can expect from such knowledge at least a more certain approach to this problem.

To know the fundamental nature of values we need to know what laws are operative in human conduct, how these laws compare with known physical laws, and how both types of law may be related to unifying metaphysical concepts. We state the problem thus because all values have arisen in a process of social evolution; "man in a state of Nature" being a hypothetical entity. To reduce all values to satisfactions of the various biologic drives such as sex or self-preservation is to oversimplify the problem and invariably leads to such watering of the concept of value as is found in Laird's account of "natural election" where iron filings are spoken of as valuable for a magnet.[1] Valued experiences only occur among men living in a society surrounded by a natural environment. An ignoring of the social nature of mind and emphasis upon some other aspect of it, viz. the biological aspect, leads almost invariably to considerations of the values for insects, magnets, and possibly atoms. Values are integrally related to mind and meaning, and only emerge wherever these latter emerge; viz. in a society of men. Further, valued experiences or values

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1 - The Idea of Value, particularly ch III

may be explained more or less comprehensively according to how many of the elements of those experiences are taken into account; the various elements, of course, being treated by the various sciences. Those sciences most directly concerned with the organism are the humanistic studies (including psychology). Have these sciences arrived at any laws of human nature, i.e. laws such as are to be found in the natural sciences? An answer to this question requires an examination of what is meant by law in the natural sciences, or an exposition of the metaphysics of the natural sciences, and how natural laws compare with present laws of human nature and conduct. We turn now to a consideration of the meaning of the concepts of law and cause in the natural sciences. After that we shall consider the meaning of the concept of law in the social sciences.

PART III - Section D

According to Benjamin, an empirical law is a repeated association of usually qualitative rather than quantitative events, the association being either of coexistence or of succession. "Causal laws are the most important type of law of succession, and may designate either mere sequences which occur repeatedly, or connections which exhibit causal efficacy. Every empirical law possesses a greater or lesser degree of empirical necessity, depending

upon the frequency with which the association occurs."[1] Now, "an empirical law becomes scientific through measurement, which replaces vaguely described qualitative events by precisely designated quantitative events; through a complex operation involving generalization, interpolation, and approximation, which results in further refinement; and, finally, through such activities as the multiplication of cases, the ascertainment of the degree of analogy applying to them, the determination of frequencies, and certain acts of arbitrary fiat- all of which replace a vaguely grasped empirical necessity by more or less precise statements of probability and necessity. These statements are scientific laws..."[2] Hence scientific law is a refinement of empirical law. Scientific law, in the most general sense of the term, includes correlated qualitative as well as quantitative events. Functional correlations are rarely if ever found in empirical law and "causal laws can be expressed as functional laws only if one neglects the fact of causal efficacy, or temporal asymmetry, or one-way dependence."[3] Finally, scientific laws as repeated associa-

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1 - An Introduction to the Philsosphy of Science, p. 355

2 - Ibid., pp. 365-366

3 - Op. cit., p. 372

tion include "(a) Laws which are universal and necessary but whose universality and necessity, are determined intensionally (formally) rather than extensionally (empirically)...(b) Laws which are universal, but only probably true. (c) Laws which state statistical correlations only, and are based on examined frequencies."[1]

The problem of induction has been approached in recent years with increasing interest in theory of probability.[2] The principle of the "uniformity of nature" has been recognized as no adequate basis for the justification of universal scientific laws. Yet "even probable inferences are based on certain assumptions of constancy, and it is the task of science to select these features of uniformity and to formulate them in laws."[3] The ideal systems of classical mechanics were thoroughly deterministic and it was thought that by introducing a sufficient degree of refinement into any actual system it could be shown to exemplify the universal and nomically necessary law of behavior in the ideal system; this law taking "the

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1 - Ibid., p. 375. Brackets mine

2 - Cf. Foundations of Geometry and Induction, J. Nicod, section on "The Logical Problem of Induction." Also, Treatise on Probability, J. M. Keynes, Part III

3 - Op. cit., p. 376

form of a functional relation between one variable representing the state of a system (its position and velocity) at one time and another representing its state at an earlier or later time." Since this law was empirically verified "in all cases in which a high degree of refinement could be introduced," it was concluded that nature, "at least so far as its mechanical features were concerned," was at base a deterministic system.

There has been in increase in concern with the indeterminancy of nature as expressed by the Heisenberg principle according to which principle "the two values- position and velocity- which indicate the state of a particle at a time cannot both be determined with a high degree of accuracy....The inferences from this fact to a general view of nature are of two kinds, and physicists seem to be divided about equally into two classes on the basis of their views as to these consequences. On the one hand are such men as Eddington and Compton, who conclude that the world cannot be a rigidly deterministic system; on the other, such men as Planck and Einstein, who insist that the difficulties are merely in our techniques of observation and not in nature itself."[1] Final solution of this controversy is a problem of the future. "What must

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1 - Op. cit., pp. 378-379

be decided now before any ultimate reconciliation of the opposed points of view can be achieved, is the precise extent to which one's knowledge of events is determined by operations upon events and the extent to which it is determined by the events themselves. This is the problem of the future."[1]

Bearing these aspects of natural laws in mind, we turn now to an examination of law and cause in the social sciences. In "an attempt to discover whether there are any valid scientific laws in social phenomena to justify the claim of the various social sciences to the title of positive sciences," Kyung Durk Har has made a critical examination of some one hundred and sixty-odd social laws.[2] These he classifies as "teleological laws," "aprioriisms and methodological presuppositions," "statistical laws" and "near-causal laws." Har defines a scientific social law as "a description of an invariant pattern of social phenomena, if there be any such invariant patterns, explicable by means of a plausible hypothesis concerning human nature and social relations, thus making the conceptual unification of social phenomena complete."[3]

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1 - Ibid., pp. 382-383

2 - Social Laws, 1930

3 - Op. cit., p. 20

Typical apriorisms are to be found in the writings of those social scientists who work with the idea of erecting a "pure" economics or "pure" sociology;[1] the apriorisms used usually are necessary presuppositions for such systems but as logical constructions they are not social laws.[2] Teleological laws spoken of an "natural laws" and posed as social laws are found throughout the writings of some social scientists.[3] "At best they are teleological statements, replete with unanalyzed assumptions concerning the value of a process, and often covering but thinly the pious wishes of their authors."[4] Statistical laws in the social sciences are[5]

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1 - Cf. "The Law of Parsimony" in Pure Sociology, L.F.Ward, pp. 59-62; "The Law of Individual Choice" in Outlines of Sociology, Blackmar and Gillin, pp. 368-369; "The Law of Free Competition" in A History of Economic Doctrines from the Time of the Physiocrats to the Present Day, C.Gide and C. Rist, p. 358 and Principles of Political Economy, J. S. Mill, bk. IV, ch. 7, par.7; also Foundations of Sociology, E. A. Ross, p. 46

2 - For a statement on the futility of "pure" social sciences see Social Science and Human Values, H. S. Fries, Journ. of Social Philosophy, vol.3,1937. Cf. also, Pseudo-Scientific Economic Doctrine, J.Mayer, Phil. of Science, vol. 3, 1936 and Contemporary Economic Thought, P.T.Homan, Harpers, 1928, particularly "The Present Impasse."

3 - Blackmar and Gillin, op. cit., pp. 370-371; The Law of Survival and Progress" in Blackmar and Gillin, p. 378; also "The Law of Adult Life" in Crime in Its Relation to Social Progress, A. C. Hall, pp. 277-278

4 - Social Laws, p. 93

5 - Cf. F.A.Bushee, Principles of Sociology, pp. 329-331 for examples.

beset with many difficulties. Such laws involve definition of data, classification, measurement, correlation, and on practically no one of these points do social scientists agree; usually their disagreement is upon definition and classification of data, the most important aspects of this procedure. The near-causal laws of some social scientists are usually based upon inferences from the order of historical sequences or on inferences from biological and mechanistic analogies.[1] These two types of law are open to the two fundamental defects in analogical reasoning; viz. incompleteness of analogies and the possibility of their yielding false conclusions if pushed too far. Further, these laws are usually impressionistic ways of describing a situation looked at in a certain way and actually each "is an empirical observation without any statement of causal necessity." Another class of laws, often referred to as "laws of history," "social laws," or just "laws," are the philosophical generalizations on history worked out by thinkers like Spencer, Hegel, Marx, and others. These are, for various reasons which we shall not take time to discuss, not scientific laws.

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1 - Foundations of Sociology, E.A.Ross, p. 56; The Outlines of Sociology, L.Gumplowicz, p. 108. For other examples see Ross, op. cit., p. 56; Les Lois sociologiques, G. J. DeGreef, p. 120

In general one might say that the social sciences are today full of pseudo-scientific laws of human conduct. Most "social laws" are in no way scientific laws except in an elementary descriptive sense. In both the natural and social sciences, however, there is traceable a progression from purely descriptive to explanatory techniques in the formation or discovery of laws.[1] In the former sciences there is a definite need for some broad, comprehensive, unifying, metaphysical principles while the history of the latter sciences is a history of incomplete success at various attempts at unification through biology, through economics, and through the philosophy of history.[2] Har is of the opinion that a unification of the social sciences is possible only through a common and basic social psychology. For him, "the backbone of all the social sciences is psychology" and "the laws of human behavior are the fundamental laws of all the social sciences. Thus the ultimate problem to which the study of all social problems can be reduced is the study of man himself....All social problems

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1 - Jacques Rueff, in his From the Physical to the Social Sciences, shows how the temporal and logical continuity of "descriptive" and "explanatory" science (social and physical science in this instance) can be maintained. The weakness of his account lies in the fact that he apparently conceives scientific hypotheses to be exclusively of the ad hoc type. Cf. pp. 48-49, p. 23.

2 - Social Laws, p. 243

are resolvable ultimately into problems about men: what they are, what they want, and how they get it. The study of history may help us to build our interests, and thereby to become what we are, since we may at any given time be identified with our interest.[1] Science may help us get what we want, by presenting us with sets of facts. And philosophy may help us to discover what is the nature of things we want, or whether the things we apparently want are the things we really want."[2]

Now there is much in Har with which we can agree but the solution he suggests is not cognizant of all the difficulties surrounding this problem of unifying the social sciences. Examination discloses that we have no commonly accepted psychology, no one coherent body of knowledge that we can refer to for the laws of human behavior. There is no one "psychology" but rather "schools of psychology" that differ radically both in subject-matter and methods. How this state of affairs has come about need not concern us here. What is more important is the

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1 - Har nowhere mentions Mead's conception or role-taking so I take it this interpretation of the study of history which is almost identical with Mead's in the latter's Movements of Thought in the Nineteenth Century was arrived at independently.

2 - Ibid., p. 244. Italics mine. This deinition of philosophy is compatible with what we would consider a proper conception of value philosophy on its most concrete level.

problem of bringing some unity into this field while at the same time preserving the valuable contributions that have resulted from so many different approaches to psychological problems. A way of bringing about such a synthesis, by viewing the various schools as complementary, is suggested in a table which we reproduce below.[1]

This table has the advantage of showing differences based upon subject-matters and as such is similar to the classification of the sciences suggested earlier in the present study. Like all classifications it is arbitrary in a sense but at the same time it is suggestive of a new perspective on present "psychologies." Our point is that what is being done by many thinkers in the field of the natural sciences can and should be done with the various "schools" of psychology. The methods and concepts of the various psychologies should be critically examined and logically evaluated. Just as there should be a logic and metaphysics of the physical and natural sciences, so should there be a logic and metaphysics of psychology. Often the difference between these schools- as is the case between "structuralism" and "gestalt"- is based upon claims of the greater ultimacy of their respective subject-

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1 - Schools of Psychology: A Complementary Pattern, Saul Rosenzweig, Phil. of Science, vol. 4, 1937

TABLE II

THE COMPLEMENTARY PATTERN OF PSYCHOLOGICAL SCHOOLS

Name of School	Structuralism	Gestalt Psychology	Functionalism		Geisteswissenschaftliche or verstehende Psychologie
			Behaviorism	Psychoanalysis	
Characteristic problem or field of research	Sensation	Perception	Learning	Motivation	Character
Temporal span of observation in typical methods	•	O	→	⟶	⟶ ∞
Conceptually allied sciences	Physical e.g.physics		Biological e.g.Physiology	Social	e.g.sociology

matters. Such claims should be investigated and logically evaluated. This is a further task for the value philosopher. Until this task is accomplished we cannot expect a unification of the social sciences through a universally accepted social psychology; Har's point is well taken but we must recognize the difficulties involved in his suggestion.

Further, unifying the social sciences through a system of universal laws of human behavior merely brings us back to the difficulties surrounding the concept of law in both the natural and social sciences. Our examination of the concept of law in the natural and then in the social sciences reveals that "laws" in the latter sciences have little of the precision and high degree of probability of the former. Yet in both cases there are problems to be solved. The recent impact of the Heisenberg principle has brought about the appearance of certain epistemological problems centered around scientific methods of knowing and scientific knowledge. Analysis of so-called "social laws" leads Har to the conviction that these empirical generalizations can only be unified into a conceptually coherent science by basing them upon scientific

laws of human behavior.[1] The source of such laws is looked for in a universally accepted and applicable social psychology. Yet when we regard the problem of the nature of causation itself we find that there is much yet to be solved. The specific difficulties referred to are those surrounding the notion of causal efficacy. Hume's analysis[2] is, of course, classic on the subject as one of the best formulated denials of any empirical referent for the notion of causal efficacy. Contrasted with this is Whitehead's analysis[3] in which claim is made for the existence of such an empirical referent.[4] In a sense this problem is "irrelevant to science" as Benjamin points out. For science a purely descriptive view of the causal situation is adequate. "But from another point of view the issue is relevant. Though science does not require the notion of causal efficacy it does require, at least according to

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1 - In this connection it is to be noted that Aristotle's theory of value rests primarily on his conception of human nature; which conception is in turn based upon metaphysical principles.

2 - Cf. A Treatise of Human Nature, Bk. I, Part III; Enquiry Concerning Human Understanding, Section VII

3 - Process and Reality, Macmillan, 1929, pp. 265-266; Adventures of Ideas, p. 250

4 - Cf. also Causation, Freedom, and Determinism, M.Taube, Allen and Unwin, p. 155, a follower of Whitehead.

the prevailing view, the notion of necessity, and the problem arises as to what can be the empirical foundation for this notion."[1]

Another approach to a unification of the humanistic studies is suggested in the view that these studies pursue certain ideals and that they must define these ideals as part of their subject-matters.[2] In other words, the social scientist orients his work in terms of a professed value judgment. But if the economist claims that economics is the science of how men can acquire wealth and he defines this wealth, what universal validity can he claim for this value which he seeks? He can only answer by showing that this is a value which men do seek regardless of what they may think they value; that despite the fact of individual variations there are universal traits of human nature that form the basis of universal principles of preference. Obviously, his only source for such knowledge would be a coherent knowledge of the laws of nature and the laws of human conduct based upon an articulated epistemology and metaphysics. Instead of adopting, as has happened in the case of the utilitarian economists, a particular view of

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1 - An Introduction to the Philosophy of Science, ppp. 353-354

2 - Cf. supra, p. 46

human nature and a general theory of value based upon this conception, the social scientist must define the ideal of his science in terms of a value philosophy based not only on a knowledge of the universal laws of human conduct but on a value philosophy that is fundamentally adequate epistemologically and metaphysically.

PART III - Section E

Let us summarize briefly what we have just been considering. Judgment of fact and judgment of value we found to be phases in a general process of interpretation. The intimacy of these two we indicated in their common element, viz. concern with the biotic meaning of any given taken as symbolic. Interests are basic constituents of values; a world without socialized human beings would be a world without values; without values realized in the concrete awareness and achievement of men as well as without standards of value. This does not make for the complete subjectivity of values. The capacity of certain objects to satisfy interest is an equally important element in the value-situation. Values or valued experiences are emergent upon an organism-environment-interaction-situation. From such situations we can infer that aspects of a valued experience are due to physical, social, and biological factors but when we come to consider principles of preference

there seem to remain idealistic factors that a purely objective behaviorism cannot explain. A parallel to this situation is our present inability to explain satisfactorily the "logic" of scientific discovery or invention of new hypotheses and the drawing of contentual inferences from these new hypotheses. This brings us to the problem of discovering, if possible, traits and interests of human nature that are universal; as well as universal capacities of objects to effect satisfaction of these interests. Such knowledge involves a comprehensive unification of humanistic and natural studies into a coherent body of knowledge based upon adequate epistemological and metaphysical hypotheses. Such a unification and metaphysical grounding of all knowledge should yield knowledge of the universal principles of preference for men in society and in a world of nature.

PART IV - Section A

A necessary complement to any philosophy of value is a philosophy of education. We noted Aristotle's recognition of the integral relations between these two earlier in this study where we indicated how his account of moral development was based upon his metaphysical "system of development," thus affording a metaphysically adequate account of the educational process. For Aristotle, learn-

ing is a process of becoming and we become what we know; to know what is morally good we must perform morally good acts; to become morally good we must bring into actuality that which exists in us only potentially and marks us off from all other beings, viz. our reason- rational activity is the end of the learning process. Hence the task of the educator is that of facilitating the development of the soul to a state of actual existence, which being accomplished, the pupil "perceives" the intrinsic values of life. Since the world is rational throughout, values are rational, hence reason is the instrument for acquiring knowledge of those values and their hierarchy.

In Perry, "four methods of control"[1] are offered as a basis for a program of education that would lead to a knowledge of values. The common purpose of these methods of control is to "beget" in the subject "a state of interest which he did not have before." First, we may stimulate interest by presenting or describing those objects in which we want the subject to take interest; second, we may arouse interest in objects by simulating or manifesting interest in these objects ourselves; third, we may starve the subject by depriving satisfaction of his present interest and presenting only those eligible

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1 - General Theory of Value, pp. 524-526

objects to which we want his interest attached; and fourth, we may gain our end indirectly by dealing with the subject's other interests- "Through satisfying, or thwarting, or deadening his other interest by any of the first three methods, I may so affect his general state as to render him more susceptible to the interest which I am seeking to implant."[1] In a broad sense, this theory of education is based upon the idea that the manipulation, creation, and re-channeling of desires is the task of the educator, and in this sense it is in accord with the Aristotelian theory of education. From this point on, however, the two theories differ. Their difference lies in the fact that Perry's theory is wholly psychological and lacks an adequate metaphysical basis while Aristotle's theory is rooted in and based upon metaphysical principles.

PART IV - Section B

If value philosophy to be fundamentally adequate must rest on a metaphysical basis, then the theory of education which that value philosophy involves must also rest on the same foundation. Semiotic and scientific empiricism afford such a foundation for a philosophy of education.

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1 - Ibid. p. 526

The given is emergent from and within the natural process of interaction between organism and environment. Values or valued givens likewise are events emergent upon an organism-environment-interaction-situation. Further, any present given behaved to as implicating a future given is meaningful; this meaningfulness being expressible in three dimensions. A valued experience is one in which both individual and social interests are satisfied in such fashion as to integrate these into a harmonious self and at the same time one which makes possible future increased satisfaction of both types of interest in the same integrating manner. What then, on the basis of these considerations, is the task of the educator?

Learning, is a process of development and growth. The end of that growth however, is not ultimately the contemplative life of Aristotle but the constituting of harmoniously integrated selves such as we have defined them. Each given determines in a way the nature and occurrence of future givens. The task of the educator is "to arrange for the kind of experiences (givens) which, while they do not repel the student, but rather engage his activities are, nevertheless, more than immediately enjoyable since

they promote having desirable future experiences"(givens)[1]; "desirable future experiences" being intrinsically valued givens as we have defined them. This means, among other things, that the educator must plan present givens based upon a knowledge of the stage of development of the pupil's individual and social interest, the environment of the child, and the possible implications of that given for a widened horizon of "desirable future experiences." Such planning is based upon the "principle of continuity of experience," viz. "that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after"[2] along with the principle that learning is "growing." If this latter is objected to on the basis that growing (or learning) must be to some end, in some direction, we can only answer that "when and only when development in a particular line conduces to continuing growth does it answer to the criterion of education as growing."[3] Hence, the given

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1 - Experience and Education, J. Dewey, p. 16. Brackets mine. The use of the term "given" instead of "experience" may be more awkward but we justify such usage as a means of avoiding the ambiguities that have been attached to the concept of experience. Cf. Reason and Nature, M. R. Cohen, pp. 452-454

2 - Ibid., p. 27

3 - Ibid., p. 29

value will be one which has biotic meaning for the learner, existential meaning in referring to future givens as determined in part by the present and future environment and in part by the growth of the learner, and formal meaning in fitting into a growing linguistic system. In other words, the test of a truly educational given is the meanings it involves; the present is taken as implicating both past and future givens. The greater the number of implications referring to other desirable givens the more educational value the given has. An educational given is one which leads to continued growth, this growth being one of continual expansion of individual and social interests into an intelligent, socialized and hence moral, harmoniously integrated self.

Since valued givens are the product of an organism-environment-interaction-situation neither are the purposes and interests of the learner (taken in isolation) the sole determinants of a valued given, nor is any environment (taken in isolation) the sole determinant of a valued given. Hence knowledge of what constitutes a given of educative value, viz. one which leads to continued growth, involves knowledge of the purposes and interests of the learner at his particular stage of development and knowledge of what in his physico-social environment has the capacity for satisfying and expanding his interests in an integrative

way at that particular stage of development. The interests of the learner do not alone determine what given is of educative value for him nor does any particular subject-matter have educative value apart from the interests of the learner.

In so far as the future is always taken into account at every stage of the educational process this does not mean that the learner must simply use the present to get ready for the future. "We always live at the time we live and not at some other time, and only by extracting at each present time the full meaning of each present experience are we prepared for doing the same thing in the future. This is the only preparation which in the long run amounts to anything."[1] The organism, the environment (physical and social), and the future and past are determining factors of the given that has educative value.

It is when we consider the social environment of the learner that we understand education as essentially a social process.[2] Here it is evident that the educator must give to the pupil common meanings, common linguistic tools, common (scientific) knowledge. Here play in the form of games in which the individual is given the opportunity to

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1 - Op. cit., p. 51

2 - A Social Basis of Education, H. S. Tuttle, Part IV

take the role of others and thus build up a self are recognized as important.[1] The process of role-taking may also be utilized in the educational program for the purpose of building ideals that shall operate as principles of preference. By assimilating the interests of historic personages whose conduct has been recognized as of high moral worth the child becomes these individuals and seeks the values sought by them. Here again, however, what roles shall be taken depends upon the stage of development of the child, its present environment, and consequently the value-meanings that are involved in taking the role of a particular character in history; the role that the child takes must be significant in the sense that it will lead to future desirable givens. In other words, the educational program should include such opportunities for role-taking as will facilitate the development of ideals over and above the more commonplace considerations of balancing of personal and social interests. To train only with a view to present and future harmonious integration of personal and social interests is to risk the production of mediocrity; only an educational program that includes the inculcation of ideals and the training of ability in the formation of ideals can avoid such leveling effects.

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1 - Cf. Mind, Self and Society, chs. III-IV

Mere balancing of individual and social interests does not account for that final "leap in the dark" that results in the creation of new principles of preference or ideals that usually lead to a complete reconstruction of personality. We need to determine (if possible) more adequately the conditions and nature of such "leaps" and include such information in the educational program as a means of developing the insight into more permanent principles of preference. Further, there should be incorporated in the curriculum an integrated program of the sciences aiming at a coherent knowledge of the natural and social environment and of the self. This is for the purpose of developing intelligent, socialized, and therefore moral, selves making social judgments[1] on the basis of such knowledge. As a social process education involves the conception of the teacher as a participant in rather than outsider to the cooperative activity of the group. This does not mean that the teacher does not occasionally have to intervene and exercise fairly direct control. Such interventions are exceptional, however, when compared with the number of occasions in which "the control is exercised by situations

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1 - Cf. Social Judgment, Graham Wallas. A very interesting but brief study on the inseparability of scientific knowledge and refined emotions (sentiment) in the making of social judgments.

in which all take part." Direct control when exercised by the parent in the family or the teacher in the classroom "is not a manifestation of merely personal will; the parent or teacher exercises it as the representative and agent of the interests of the group as a whole."[1] These and other more specific considerations fall within the province of philosophy of education but space does not permit a more detailed statement here. We have only attempted to indicate briefly that a fundamentally adequate philosophy of education can be built upon the metaphysical and epistemological hypotheses of semiotic and scientific empiricism.

CONCLUSION

On the basis of such considerations as have occupied us throughout this study we should now be able to state more definitively some of the necessary conditions of a philosophy of value that is to meet the test of fundamental adequacy. What we have attempted to do throughout is to show the relevancy of certain fundamental problems to the problem of erecting a comprehensive and sound theory of value. Contemporary value theorists are more often than not too prone to ignore the interdependencies and interrelations we have indicated here. Since our elected problem

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1 - Experience and Education, pp. 58-59

was primarily to show these interrelations and not to propound a complete philosophy of value the conclusions arrived at will hardly be satisfactory to those who might have sought here solutions rather than problems. Possibly the most repeated thesis in what we have said here is the demand that value philosophy rest upon a metaphysics and an epistemology that take into account the methods and data of the modern sciences. This demand has as yet to be fulfilled.

Value philosophy is concerned with problems that appear on at least three broad levels of abstraction. On its most abstract level philosophy of value deals with the logical value of the methods and concepts employed by the philosopher of science. On its next less abstract level value philosophy may be identified with philosophy of science as the logical valuation of the methods and concepts of the special sciences. On both these levels philosophy of value is concerned with meaning-analysis and as such must rest on an adequate theory of meaning. We have outlined here a three-dimensional theory of meaning which may be applied empirically and is called semiotic. Critical meaning-analysis such as this depends upon a symbolic interpretation of epistemological problems and a metaphysics based upon our knowledge of existence as revealed by the sciences and ordinary experience. Scientific

empiricism seems at present the best name for such an approach to fundamental problems. The search for logical values it was held, would probably yield a scale of logical value rather than absolute logical values, yet what is particularly lacking at present as a basis for this contention is an adequate theory of probability and inductive inference, both integrally related to the logic, epistemology and metaphysics implied in modern science. What is needed then, for any philosophy of value that is to rest upon modern scientific methods and concepts, is a set of unifying metaphysical and epistemological hypotheses coupled with a strengthening theory of probability and inductive inference. These are problems for the future.

On its most concrete level value philosophy is concerned with the definition of specific values in the fields of esthetics, law, education, the social sciences, and all human activities involving judgments of value and ideals. The need of value philosophy here is for a unified and coherent knowledge of human nature and conduct based in turn upon an adequate scientific epistemology and metaphysics. The social sciences need to be unified by a common socio-psychological science that will give us a systematic knowledge of the universal traits of human nature; such a knowledge is necessary for arriving at objective principles of preference in the various fields of human

activity. An obstacle to such a universal socio-psychological science is the present difference of opinion among psychologists themselves on the proper methods and data of their science. It would seem that we could approach the problem of unifying the social sciences by means of a general theory of value but this in turn could only be accomplished by having first such a knowledge of the universal traits of human nature as we have suggested; a science of human nature and conduct fundamentally adequate in that it would be based upon epistemological and metaphysical hypotheses which would form not only the foundations of the psychological and social sciences but also the natural sciences.

It might be inferred from these remarks that our demands make future progress in value philosophy an impossibility; that we are demanding a knowledge of everything as a prerequisite to knowledge of values. Nothing could be more removed from our thesis. If we have proven what we set out to prove then it is clear that at present we lack an adequate metaphysical and epistemological foundation for value philosophy. It does not follow from this that we must stop all work in value philosophy till we get such a foundation. It means rather, immediate recognition of the need for such a foundation and awareness that we in fact use metaphysical and epistemological bases for our

present work in value philosophy. Future progress in value philosophy will be dependent in part upon our awareness of the shortcomings of the metaphysical and epistemological foundations we are now using in value philosophy. If philosophers of the present and future were to lay bare and endeavor to remedy these shortcomings as part of a cooperative search for knowledge, then value philosophy would be more assured of a steady and sure development.

Such should be the program for present and future philosophers; viz. a cooperative endeavor to furnish a fundamentally adequate epistemologico-metaphysical foundation for the natural, social and psychological sciences with a view to such a unified knowledge as is necessary for a systematic philosophy of value. Superficially such a demand seems almost impossible of fulfillment because the history of philosophy might be called with some justification, "the history of disagreement;" it seems part of the tradition of philosophers to disagree. Difference of opinion seems to be a necessary condition of progress in the realm of knowledge, but disagreement as an ideal works for the defeat of such progress. Unless philosophers can cease to disagree long enough to accomplish the task we have here set before them, values will continue to be defined by those political dictators and demagogues who are part of the furniture of our present world and who are by

no means capable of this task of definition which they have taken upon themselves. If philosophers refuse to take up this burden then they may look forward to the day when the value of disagreeing itself will be taken from them.

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