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Is the Scientific Behaviorist Scientific?

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IS THE SCIENTIFIC BEHAVIORIST
SCIENTIFIC?

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of the requirements for the degree of
Master of Arts in Loyola University.

VITA AUCTORIS

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INTRODUCTION

IS THE SCIENTIFIC BEHAVIORIST SCIENTIFIC?

The purpose of this thesis is to investigate the claim of Behaviorism. "Is Scientific Behaviorism Scientific?" or, as the Behaviorist claims, more scientific than any other psychology?

As the Behaviorist has redefined many of the traditional terms, such as "Science, Postulate, and Movement," considerable space has been devoted to a discussion of these fundamental notions, for it is precisely here that there seems to be a radical parting of the ways.

It will be evident from this discussion that Behaviorism is a Monistic, Materialistic, and Mechanistic Science. According to it, Man is a physical, electroprotonic machine. Professor Weiss has been extensively quoted in this thesis, for he appears to be the most able and the most explicit defender of Behaviorism in the world of science.

CHAPTER I

FUNDAMENTAL NOTIONS

Behaviorism professes to be a scientific study of human behavior. Scientific Behaviorism asks: "Can the facts of human behavior be studied scientifically?" The professed Behaviorist declares:

"Traditional psychology through introspection, and philosophy through speculation, have given the study of the individual a status which has practically removed it from the domain of natural sciences."¹

In order to understand well this objection of the Behaviorist, it will be necessary to investigate these fundamental notions.

1. THE PROBLEM

The problem and subject proper of this thesis is formulated interrogatively: "Is scientific behaviorism scientific?" Before we can answer, it will be necessary to define what the psychologist and scientist and behaviorist understand by the terms Science, Natural Science, Psychology, Traditional Psychology, and Behaviorism.

SCIENCE. In the broadest sense, science or general science is nothing more than accurate knowledge. More strictly

science is general or it is not; if general, it is philosophy, if it is not, it is special science. Special science likewise may be distinguished: it is either speculative or it is not; if speculative, it deals chiefly with sane theories and pure knowledge, but if practical, chiefly with the application of those theories to individual beings or beings in the concrete. Theoretical science deals with abstract knowledge, practical with concrete knowledge.

NATURAL SCIENCE. Since science is accurate knowledge, natural science is accurate knowledge of nature. According to Whetham: "Natural science is ordered knowledge of natural phenomena and of the relations between them."² Such knowledge is evidently theoretical or speculative. But speculative science may be either mental or it may not: if it is mental, it is either metaphysics or mathematics, and this type does not deal with the individual primarily; if it is not purely mental, it is called natural science, for it has for its object of study, nature or natural beings as such.

When the term "Science" is used today it generally refers to science in the strictest sense, namely, natural science, or as some scientists say, science proper. Besides being contrasted with mental science, natural science is opposed today to "non-science" or "unnatural science" by progressive "scientists" who do not recognize anything above matter, that is, anything immaterial or spiritual. These scientists, who call themselves Materialistic Monists, employ the terms Science, Natural Science

or Physical Science synonymously with Science of sensible entities. To them all science worthy of the name is Material Science. This is Science in the strictest sense, today's extra-scholastic science in the common acceptance of that term.

Because the Behaviorist professes to be a Materialistic Monist, he is opposed by scientists who recognize in human nature two elements, body and vital principle or soul. These scientists use the terms Science, Physical Science, or Natural Science in a wider sense, to include the whole of human nature, its spiritual component as well as its material component. They maintain, that if natural science of the human individual is to be adequately conceived and worthy of the name, it must include his whole nature, not merely his material component or body. In our investigation, therefore, we must and shall hereafter use such terms in the wider sense, as understood by these Dualists.

PSYCHOLOGIES. Traditional psychology has defined Psychology as the study of the soul, and therefore proceeded to study the soul, and this by the most convenient and effective method, introspection. But such a psychology was accused of being too subjective, too introspective. It cannot be denied that Titchenerism was a "reductio ad absurdum" of the introspective method. Watson, the Father of Behaviorism, rightly protested, and rendered experimental psychology invaluable service in redirecting psychological investigation by insisting upon beginning with the concrete object, and making all results

congruent with objective evidence derived from the physical object under investigation. According to Watson,

"Behavioristic psychology is a purely objective branch of natural science. Its theoretical goal is the prediction and control of behavior. Introspection forms no essential part of its methods, nor is the scientific value of the data dependent upon the readiness with which they lend themselves to interpretation in terms of consciousness...Psychology is the science of behavior."³

Subsequently to Watson, the Behaviorists became accustomed to designate all psychologies before 1914, the year of foundation of the Behavioristic School, as Traditional.

In this thesis, we shall restrict the term Traditional Psychology to those Schools that define Psychology as "the science of the individual human being," whether that being be, according to Miss Calkins, our self, or another self, another human being besides ourselves. Other definitions of Psychology as "the study of conscious life or conscious processes" are discarded by the Behaviorist as entirely unnecessary. Nevertheless, for many modern psychologists Experimental Psychology remains still a science of immediate experience (erfahrungswissenschaft), or a science of feelings and perceptions studied by direct or introspective methods. With James, the Dualist may say:

"Psychology is a natural science, that is, the mind which the psychologist studies is the mind of distinct individuals inhabiting definite portions of a real space and of

a real time... To the psychologist, then, the minds he studies are objects, in a world of other objects. "4

2. THE OPPONENTS

According to Dualistic Psychology, the "subject matter of psychology or the object with which it is directly concerned is our conscious life."5

BEHAVIORISM. What is Psychology from the standpoint of a Behaviorist? Let us hear Watson, who justly objected against the unrealism of some of his contemporaries, and courageously resolved to restore the human being back to reality and to natural science:

"Throughout the preparation of this elementary text I have tried to write with the human animal in front of me. I have put down only those things that any properly trained individual can observe.... it does not take a psychologist qua psychologist to study human activity, but it does take a trained scientist and one trained along special lines.... Until psychology recognizes this and discards everything which cannot be stated in the terms of universal terms of science, she does not deserve her place in the sun. Behavior psychology does make this attempt for the first time.... It teaches us to face the human being as he is and to deal frankly with him,..."5

The Behaviorist is determined to be scientific, the Dualist also, the Psychologist and Scientist have the same intention. What must a Scientist do to be scientific? What conditions must he comply with in order to be strictly and rigidly

scientific? A scientist must:

1. Study the human being as he is - an object in reality by the process of Exact Observation.
2. Classify the Facts of Observation.
3. Formulate a methodical order of procedure, or in other words, formulate a Working Hypothesis.
4. Verify this preconceived hypothesis by pertinent, well-selected, methodical Experimentation.
5. Infer and formulate from experimental data, the correct and precise Conclusion.
6. State the result of investigation in universal terms of Science, which statement is a Scientific Law.
7. Arrange all in a logically constructed System; the result is Science.
8. Describe his experimental methods in detail so that they can be verified under similar conditions by another scientist; for although it is possible "From one, learn all," yet in order to be rigorously scientific, we need at least two to agree to establish a new science, or a newly-discovered scientific law.

THE STANDPOINT OF THE BEHAVIORIST. Watson is explicit:

"The present volume does some violence to the traditional classification of psychological topics and to their conventional treatment. For example, the reader will find no discussion of consciousness, and no reference to such terms as sensation, perception, attention, will, image and the like. These

terms are in good repute, but I have found that I can get along without them both in carrying out investigations and in presenting psychology as a system to my students. I frankly do not know what they mean, nor do I believe that any one else can use them consistently. I have retained such terms as thinking and memory, but I have carefully re-defined them in conformity with behavioristic psychology. It is possible to retain attention, to re-define it and make it serve.I have not done so."⁶

Let it be well noted here that Watson does not deny the existence of consciousness, but he denies the serviceability of consciousness in scientific psychology or Behaviorism; in other words, Watson prescinds agnostically from consciousness. Such a position is perfectly licit for a scientist, provided he remains faithful to his point of view, and does not deny the existence of a personal experience and fact, than which nothing is more certain. Does the Behaviorist make that illicit transition from prescision to denial? We shall see.

Another contemporary psychologist, Albert Paul Weiss, Professor of Psychology at Ohio State University, is a frank exponent and expositor of Behaviorism. He says:

"With reference to the work of the two psychologists most frequently identified with the behaviorist point of view, Max F. Meyer and John B. Watson, I believe I am in complete agreement on essentials."⁷

In developing this thesis, the present writer will often consult Prof. Weiss, because his work is recent and well stated. He posits the issue between Behaviorism and all the other known psychologies in no uncertain or ambiguous terms.

3. THE ISSUE.

According to Weiss, the issue or the line of battle between Behaviorism and other Psychologies is clearly defined.

"The issue, it seems to me, can be formulated as, Is the concept of mind or consciousness a necessary concept in the scientific investigation of human behavior and human achievement?"⁸

But according to the dualistic definition of Gruender, who defined Psychology as the study of conscious life, consciousness would seem to include the whole subject matter of psychology. In other words, for the Dualist consciousness is indispensable in his Experimental Psychology, whereas for the Behaviorist consciousness is unnecessary or even a hindrance. There is not the least shadow of doubt about these contradictory positions, of which one must most certainly be wrong. Is the position of the Behaviorist as expressed by Weiss correct?

"Behaviorism claims to render a more complete and a more scientific account of the totality of human achievement without the conception of consciousness than traditional psychology is able to render with it."⁹ (Italics by Weiss.)

William James agrees with Professor Gruender. In his first chapter entitled the "Scope of Psychology," he defines:

"Psychology is the Science of Mental Life, both of its phenomena and of their conditions."¹⁰

And again, beginning his treatment of the methods of psychological investigation, he writes in italics:

"Introspective Observation is what we have to rely on first and foremost and always.... Everyone agrees that we there (in our minds) discover states of consciousness.... I regard this belief as the fundamental of all the postulates of Psychology."¹¹

BEHAVIORISM IS ANOTHER PSYCHOLOGY WITHOUT A SOUL.

According to the Behaviorist quoted, Behaviorism opposes Traditional Psychology contradictorily. Precisely in what does this opposition consist? Weiss is crystal-clear:

"Much of what is written, both systematic and experimental, is an attempt to give both a mentalistic and a behavioristic account."¹²

Clearly, the Behaviorist distinguishes between mind and not-mind, between Behaviorism and Mentalism or Traditional Psychology, between a Psychology which admits mental processes, consciousness, introspection, and Behaviorism which ignores them for scientific reasons. The Behaviorist firmly believes that further progress in psychology is possible scientifically only on the necessary condition that consciousness be deleted from the psychologist's point of view and vocabulary. For that reason he maintains a rigid, non-mental, materialistic standpoint.

As we have seen, James regards consciousness as "the fundamental of all the postulates of Psychology." Since James introduces postulates, since no science can do without postulates, since postulates are not clearly understood nor clearly defined, and since the entire final third of Weiss' 452-page text-book is devoted to the POSTULATES OF BEHAVIORISM, it is

absolutely essential to define clearly the role of postulates in all sciences, and in particular in Psychology and Behaviorism. We are further encouraged to devote some time to the clarification of postulates because Weiss demands definitions, and declares that he is firmly convinced the woeful state of modern psychology is due to lack of definitions of fundamental notions.

CHAPTER II

FUNDAMENTAL CONTRADICTIONARY POSITIONS

1. POSTULATES.

Let us make a few general remarks on the necessity of postulates, that will resolve many misconceptions. A recent writer has well summarized the essentials:

"A postulate is a premise which a given science assumes as proved. It is a starting point. Not only can it be proved, but it has been proved. To prove it again would be a waste of time and energy; to prove it again would be unscientific; to prove every postulate again would be so to limit and restrict human endeavor that progress in any of the sciences would be impossible....

There must be postulates. Everyday action demands them; no science can be without them. Moreover, it is useless to admit the necessity of postulates and then fail to use them in any given science."¹³

THE POSTULATE OF BEHAVIORISM. What is the rock-bottom, fundamental postulate upon which the whole superstructure of Behaviorism rests? It is Scientific Mechanism. Upon scientific mechanism, Behaviorism places all its trust, its security. Upon this foundation it builds; if the foundation is insecure, the superstructure of Behaviorism must collapse. In order that there remain no doubt about the Behavioristic Postulate, we select the last of many similar conclusions and pronouncements from Weiss, who closes his book with this final statement:

"That these expressions are then paraded as evidence of a concord between science and some narrow pleasure-pain theory of modern social reform, fills the true scientist with consternation and doubt as to whether even the most advanced thinkers on social evolution have emerged sufficiently from their uncritical literary background to foresee some of the possibilities of human achievement when scientific mechanism is taken as a fundamental postulate in human behavior."14

It is a historical fact that the behavioristic position has been severely criticized by the Gestalt Psychologists of Germany. In our country also Behaviorism has encountered some opposition. In his book "Old Errors and New Labels," Fulton J. Sheen began his essay on "The Soul and the Twitchings of Behaviorism" with this thesis:

"Man is a machine and the Behaviorists are his prophets."15

What kind of a machine is man? He is a reacting machine. But Dr. Watson does not call him that; he prefers the scientific and physical terminology. He calls a human being a reaction-mass! What is the reaction-mass? It is an abstraction, and an abstraction cannot have a mass. Neither can the reactions of a reaction-mass have mass; for they are processes, and processes have no mass. They are only movements, not the things which move. Walking or a walk can have no mass; it is the man who walks that possesses the mass. Anyway, Dr. Watson is convinced that reaction-mass is all the psychology ever needed to explain everything.

Strictly in logical sequence with Scientific Mechanism

as a postulate is Darwinian Evolution as a corollary. And Dr. Watson accordingly lays a scientifically rejected corner-stone upon a scientifically untenable foundation. He begins his book entitled "Behaviorism, an Introduction to Comparative Psychology" with this proclamation: "The Behaviorist recognizes no dividing line between man and brute."¹⁶ He means there is no missing-link any more; at least, the Behaviorist does not recognize or admit any such connection.

If man and brute are machines, what kind of machines are they? Besides being internal combustion engines, they are reflex machines, whose activity we call Behavior. Weiss summarizes Watsonian Behaviorism in his chapter on Conditioned Reflexes: "Behavior consists of chained reflexes, which may be simple or conditioned."¹⁷ The behavioristic objective method is founded principally on the Conditioned Reflex, that is, a response is conditioned when attached to a stimulus that did not originally arouse it. But exception has been often taken to the conditioned reflex, and so we ask: "Is it a real reflex, one not involving consciousness? And if you admit consciousness which you have discovered to be unnecessary and have rejected, you manifestly contradict yourself." And so Scientific Behaviorism would seem to hold an unscientific position.

THE POSTULATE OF TRADITIONAL PSYCHOLOGY. Opposed to Darwinian, evolutionary, scientific mechanism, is scientific individualism, which renders man an ensouled, thinking animal,

possessing a unitary human nature. This scientific individualism or moderate realism or scholastic dualism is an ever-present foe to Darwinian, evolutionary, scientific mechanism. What is the basis for its objection? The Scholastic psychologist declares that if the Scientific Behaviorist takes evolutionary scientific mechanism based upon Darwin's untenable and discarded theory as his fundamental postulate, that Scientific Behaviorist is ipso facto unscientific. Why? The Scholastic scientifically proves that any postulate of unilinear evolution from the inorganic to the organic and rational realms is no postulate, not even a good theory or reasonable hypothesis, and is only worthy of the name, "Gratuitous Assumption." He declares that postulates are only real postulates when they are proved premises, not hypotheses or dogmas.

UNILINEAR, DARWINIAN and MECHANISTIC EVOLUTION, however, must not be discarded, cannot be discarded, even if untenable. This is the position of the Scientific Behaviorist. He must retain it or else go out of business! He must "postulate" his organic evolution of man from a primitive non-living, nebulous mass, of evolutionary life from non-life, of man from the ape, the ape from the lizard, the lizard from the slime of the earth, the slime of the earth from a nebulous mass. Such evolution of electron-proton configurations from the nebulous mass, the ultimate principle, is to modern science an absolutely necessary postulate.

If Darwinian Evolution is a postulate according to the Scientific Behaviorist, it has been taken as a starting principle for Behaviorism, and need not be proved by Psychology, but by the science from which it had been borrowed, that is, Anthropology. Now the same question arises: "Has Anthropology proved scientifically that men originated from the ape which in turn originated ultimately from the primeval ooze?"

MODERN UNSCIENTIFIC SCIENCE. In 1911, Sir Arthur Keith declared: "The Neanderthal type represents the stock from which all modern races have arisen."¹⁶ But in 1916, in his "The Antiquity of Man," embodied in his chapter on Conclusions, Sir Arthur Keith makes the following recantation: "We are compelled to admit that men of the modern type had been in existence long before the Neanderthal type."¹⁷

It is an undeniable, easily verifiable historical fact that world history, the history of natural science, and especially Anthropology form one long consistent refutation of the Darwinian Theory of constant and inevitable progress. Is it scientific, then, for the Scientific Behaviorist to maintain such a discarded, untenable theory for his basic postulate in Behaviorism? Is it scientific, therefore, for the American Association for the Advancement of Science to make the following dictatorial proclamation: "The evidence in favor of the evolution of man is sufficient to convince every scientist in the world."¹⁸ This is a ridiculous edict, unsupported in reality

or bolstered up by analogous objective evidence; for "Paleontology tells us nothing on the subject - it knows no ancestors of man."¹⁹ This is a contradictory scientific attitude.

"The only statement consistent with her dignity, that Science can make, is to say that she knows nothing about the origin of man."²⁰

This scientific conclusion and proclamation was true in 1902; it is true for this our day, for true science ever remains true, yesterday, today, and forever.

Why, then, this unscientific attitude regarding organic evolution of the Darwinian type on the part of many scientists? Why does A. L. Kroeber, in his text-book entitled "Anthropology" begin the first sentence of the first chapter as follows: "Anthropology is the science of Man," and then promptly entitle his second chapter, "Fossil Man," and begin here with that old and discarded fable, "The Missing Link"?²¹ Why does he again reiterate that pet assumption of "The Missing Link," that theory which was conceived by a wish of an agnostic, delivered by an atheist, mothered by hundreds of materialistic scientists who iterated and reiterated a wish and a theory, which matured into a "fact" of science, and when disproved, blossomed out into a "dogma" of science, and in our day flowered into this: "No modern zoologist has the least doubt as to the general fact of organic evolution." Organic, unilinear evolution is the angel of light of modern science! Do we wonder why no progress worth mentioning has been made in science, when it is based on this

"scientific" assumption, organic evolution a la Darwin?

"Consequently anthropologists take as their starting-point the belief in the derivation of man from some other animal form. There is also no question as to where in a general way man's ancestry is to be sought...namely, among the Primates, the various monkeys and apes."²²

The italics are mine to emphasize the unscientific attitude of some modern scientists.

IS THIS A MACHINE AGE IN SCIENCE? If science is real and universal, why does not a Darwin see with the eyes of an Abbot Mendel? Why does not natural science have in the eyes of all scientists that objective reality and validity with which it is endowed? Is it because these scientists first form a pet, mechanical theory, and then not by natural selection, but by an artificial, unscientific selection all their own, seek for only those facts which substantiate somewhat their own theory, and blind themselves to all other pertinent facts? Is it because they must wail with the evolutionary mechanist, Darwin, the wail of one who adhered not wisely but too well, who adhered exclusively to the monistic and materialistic viewpoint:

"My mind seems to have become a kind of machine for grinding general laws out of a large collection of facts."²³

Let the scientific behaviorist beware, let him who professes organic, physico-chemical, electro-protonic, mechanically reflex, "tota in toto and tota in qualibet parte" evolutionary science, beware! You get out of a machine only what you put into it - no more!

HISTORIC FACTS. What are the facts since 1859? It is a historic fact that the theory of organic

"...evolution has brought us materialistic monism, in whose barren soil nor faith, nor idealism, nor morality, nor art, nor any of the finer things of life can thrive."²⁴

And neither can nor did natural science thrive in such an unnatural field, neither can scientific enlightenment be enkindled at the torch of hopeless night of organic evolution with its monistic conception of an animalistic man. From the standpoint of science,

"Darwin's doctrine on the bestial origin of man brought no other gain to natural science than the addition of one more unverified hypothesis to its already extensive stock of unfounded speculations."²⁵

CONSEQUENCES OF DARWINIAN "POSTULATE." Now let the Scientific Behaviorist scientifically and sincerely ask himself: "Is my fundamental postulate for Behaviorism, postulating organic and mechanical evolution, not a postulate at all, but only an unverified and unverifiable hypothesis?" Too long has this plausible yet blinding doctrine with its prolific progeny of exaggerations, misrepresentations, and plausible formulations met with an all-too-ready credence on the part of unquestioning scientists, who did not or perhaps could not discriminate between a theory or hypothesis and a postulate, who after Darwin accepted all too readily and unquestioningly an unscientific postulate as demonstrated beyond all shadow of doubt. Today, in 1935, we see all too clearly that the solid gain to natural science from

the doctrine of Darwinian organic evolution has been negligible but the consequent Dark Age in Science has been unquestionably worse than the Dark Age from the 5th to the 8th Century; for then there was only the darkness of ignorance, which needs but Light to replace it. Today we have Error, which is Darkness darkening Darkness, which in so many scientists is so impenetrable and unapproachable that it is almost beyond the possibility of scientific enlightenment.

CONSEQUENCES OF BEHAVIORISTIC MECHANICAL POSTULATE.

With this postulate of Mechanical Organic Evolution, the Behaviorist has had the temerity to "establish" the postulates for the Behavioristic science of Ethics! Let him beware! Today Marxian Socialism and the Reign of Terror of Communism is also called "scientific" for no other reason than that it too is based upon "pure" materialistic evolution. Today Behaviorism also is called scientific for no other apparent reason than that it combated the unscientific and extreme Titchenerism and Introspectivism, and because it based its stand upon nothing else than materialistic evolution. Its reign of terror, since 1914, caused the Great War in Science! Its deadly doctrines are so revolutionary and revolting to nature and natural science and natural ethics that even the Behaviorist himself confesses:

"...the public mind is not yet prepared to receive them, and must first be properly educated to accept them..."²⁶

to accept them in the Behavioristic "scientific" spirit.

RECAPITULATION THUS FAR:

The theoretical basis of individual and social behavior according to the Behaviorist is evolutionary scientific mechanism, of which the ultimate elements are electrons and protons. This is the fundamental principle, this is the basic assumption. I repeat, Behaviorism is built upon the evolution of man from electrons and protons, and from nothing else.

According to the Behaviorist, he is contradictorily opposed by all and to all previous psychologies, which he calls Traditional Psychology, which does include Popular Psychology, Scientific Psychology before 1914, and all other psychologies that postulate an animistic basis for their study of human and animal behavior. These all consider introspection as valid experimental technique.

According to Professor Weiss, it was his intention to "scrutinize fundamental assumptions" and insist upon "some degree of consistency in the development of the superstructure" of psychology.²⁷ This we have done; and we have come to the following conclusion: Since the fundamental assumption of Unscientific Behaviorism has never been proved and yet has been accepted as a Postulate, the superstructure of Unscientific Behaviorism, no matter how imposing or attractive it may seem, collapses. The Scientific Behaviorist has been proved unscientific in accepting the viewpoint that Man is a physico-chemical, electro-protonic, organically evolved, mechanically reacting, reflexly behaving combustion engine.

2. DEFINITIONS.

BEHAVIORISM DEFINED. We are now in position to examine the definition of Behaviorism. Etymologically, Behaviorism would be the study of human behavior, of man's adjustment or adaptation to his environment. Prof. Weiss defines:

"From the standpoint of the writer, behaviorism is the science that studies the origin and development of those bodily movements (responses) of the individual which establish his status in the social organization of which he is a member."²⁸

The Traditional psychologist of the Scholastic School would deem this definition inadequate unless the words "and psychic" are included after "bodily," to represent the responses of the complete individual. But Prof. Weiss says:

"For the writer, behaviorism in psychology is merely the name for that type of investigation and theory which assumes that man's educational, vocational, and social activities can be completely described or explained as the result of the same (and no other) forces found in the natural sciences."²⁹

Earlier in this thesis, we have carefully defined what is commonly accepted by the term "Natural Science." But Weiss by this term limits himself only to sciences using a measuring-stick of wood or brass instruments. Natural science, as under-

stood by scholastic psychology, means much more than that. It means studying nature wholly and accurately, so that scientific knowledge may be gained and verified by whoever wishes to do so at whatever time and place he wishes to do so, if he provide only identical experimental conditions. But the Behaviorist will not face everyday facts of human experience, and must cling to pet theories and unscientific beliefs:

"For the writer behaviorism represents, as it does for many others, a protest against all attempts to explain human achievement by the introduction of an element which is beyond the range of the physical measurement. I believe that human achievement is of the same order as the inorganic and organic processes which prevail in the physico-chemical universe."³⁰

Evidently here we have the point of departure between behaviorism and scholasticism. The behaviorist himself plainly realizes that no uniformity can be reached in such a controversial and contradictory atmosphere. He summarizes the viewpoints of the opponents; but unfortunately, like many non-philosophical scientists, he fails to distinguish between a postulate, which can be proved and has been proved and upon which a less fundamental science builds, and a hypothesis which has not been proved. These are his own words:

"There are two types of postulates according to which human behavior and human achievement can be explained: (1) Physical causation, according to which human achievement is the product of nothing but the physical processes and structures which make up the body and the environment, and in which the sole datum of existence is the electron-proton totality;

(2) Psychical causation, according to which human achievement is the product of some entity which is not completely describable under the electron-proton assumptions."31

Too many hypotheses in the dress of postulates, and beliefs which are merely subjective longings have been expressed by the Scientific Behaviorist. Let us conclude this passage with another citation from the Scientific Behaviorist, Weiss, in which enough beliefs are expressed to make of Behaviorism not a Science but a Religion, the Religion of Mechanical Evolution:

"I believe that eventually psychology will be recognized as an interlocking segment through which the social sciences will become an extension of the natural sciences. As an educational problem our whole conception of science will probably change. Physical science has not seriously interfered with traditional beliefs of either the educated or uneducated; biological science and the theory of organic evolution in particular has been widely accepted by the educated and is beginning to be accepted by the uneducated; the social science of the future will introduce the conception of social evolution which will brand as illusion and error a much greater percentage of long cherished beliefs and ideals, but this sacrifice is now scarcely anticipated by the educated and is entirely unsuspected by the masses of mankind."32

With such a platform Behaviorism claims to be the one and only psychology.' It claims to displace all others, to make them unnecessary.' This is not science, this is a code or cult unguided by objective evidence. Behaviorism violates its own code from the very beginning. It demands objectivism, and yet passes judgment promiscuously, and uses but one touchstone for all its judgments—the magic word, MATTER. If it is not

matter, it is wrong, it is inadmissible. Absolutely, and let it be noted, a priori! There exists nothing but Matter. Why? Because Behaviorism says so! Its only objective knowledge is the physical world. This is opinion or madness, but not science.

A SUMMARY CONTRASTING UNSCIENTIFIC BEHAVIORISM AND SCIENTIFIC PSYCHOLOGY. Let it be noted clearly:

1. Behaviorism rests upon the theory of unscientific evolution; experimental traditional psychology upon the fact of a vital, organizing and unifying principle, the soul.

2. Behaviorism seeks to explain all by the evolving and gyrating configurations of electrons and protons; although Traditional Psychology admits moderate evolution restricted to definite orders of beings, scientifically it must deny that evolution is an adequate explanation of all the phenomena and experimental findings in psychology.

3. Behaviorism posits social evolution due to intrinsic changes in the configuration of complex electron-proton combinations; Traditional psychology admits social evolution, but cannot scientifically admit the evolution of that fundamental unit of society, the individual human nature.

3. OBJECTIVES.

PURPOSE OF WEISS AND PURPOSE OF THIS THESIS IDENTICAL:

"This book is an attempt to bridge over the gaps between traditional, popular, and behavioristic psychology by showing their interrelations. The underlying plan of the book is to present fundamental principles of behaviorism as the writer sees them, and to compare them with the most important conceptions in traditional subjective psychology and the sociological systems that are based upon it."³³

After pointing out that Titchenerism was traditional subjective psychology, and that Scholastic or Neo-Scholastic psychology is subjectively and objectively scientific, we subscribe to the noble purposes expressed by Professor Weiss.

CONTRADICTORY POSITIONS. The Behaviorist maintains:

"Thus, in the last analysis, human behavior is reduced to movements between electron-proton systems, but this reduction is the final aim of all scientific investigation. As an expedient in social co-operation, the behaviorist specializes in the study of those complex forms of motion, which, for want of a better classification, are designated as the personal, domestic, professional, public, moral, esthetic, scientific activities."³⁴

But the Scholastic psychologist maintains: Human behavior is ultimately reduced to movements of the soul, which cannot be reduced to electron-proton systems.

These positions contradict one another; consequently, both cannot be right!

STATE OF THE QUESTION. That man or beast or plant is a particular systematic configuration or electron-proton pattern can be admitted; that man or other living being possesses a vital principle as a unifying principle is only admitted by the scholastic and popular psychology.

That this vital principle is not demonstrable directly by wooden measuring-sticks or brass instruments or other material instruments of precision, is universally admitted; that it, therefore, is nonexistent is generally affirmed and taken for granted by non-scholastic psychologists, and just as insistently denied by the scholastic, as an unwarranted, indemonstrable, unscientific conclusion, based upon preconceived theories.

Finally, Neo-Scholasticism and Scientific Psychology maintain that Behaviorism, with oversimplification, with the building up of complicated patterns of behavior by the integration of simple reactions, by seeing only stimuli and responses and enchanted by its magic formula, S-R, expressing nothing but conditioned and unconditioned reflexes, it can never scientifically and adequately achieve its purpose and arrive at its objective.

CHAPTER III.

MONISM vs. DUALISM.

I. HUMAN BEHAVIOR AND PHYSICS.

BEHAVIORISM AND PHYSICS. Thus far we have seen that Behaviorism is seriously attempting to make the psychology of human behavior, to make a non-mathematical science mathematical to make the psychical aspect of human behavior physical, and to identify the physical with material. Is human behavior the effect only of a physical force? Or is there another force that may be negatively expressed as a non-physical force and positively expressed as a psychical force? If it does exist, must it not be recognized in order that human behavior may be adequately and scientifically studied?

Is human behavior the result of a physical force only? The Scientific Behaviorist claims "scientifically" that it is. But to establish this claim scientifically, he must reduce all human activity or behavior to one physical or material principle of activity, to the Energy of Physics. He is attempting an impossible task a prima facie, for it is clearly evident that physical matter as studied by Physics, is dead and lifeless and killed if previously alive, and therefore can never give an ad-

adequate explanation of vital behavior. Since non-living physical substances do not possess all of the following characteristics of living creatures, which are found specifically in each representative:

1. Definite size.
2. Definite shape.
3. Definite chemical composition.
4. Definite organization.
5. Definite immanent activity - metabolism.
6. Definite reduplication of itself - reproduction.
7. Definite responses following with physical but not absolute necessity - irritability:

therefore, a fortiori, human behavior, being a study of life and of living activities, is entirely out of the scientific scope of physics, and consequently out of the realm of the Monistic Behaviorist.

View of MECHANISTIC PSYCHOLOGIST and BEHAVIORIST.

"The scientist, however, will regard the physical explanation /electron-proton configurations/ as the better working hypothesis, at least in his own field, although he too may have certain reservations as to the adequacy of physical causation when he considers such activities as morality, religion, art, etc., in which he is on the same level with the poet or non-scientific individual.

The behaviorist, however, is faced with the problem of describing human achievements in the most accurate and uniform of all languages (mathematics). The traditional spirit or psychical conception cannot be thus described. "35

It is familiar and commonplace history that Descartes attempted to make philosophy, a non-mathematical science, mathematical. He, genius though he was, failed, for he attempted the impossible. Shall history and its failures be repeated?

ARISTOTLE'S WARNING. The Stagirite cautioned subsequent generations that not all sciences can be expected to yield the same mathematical certitude that the metaphysical science of mathematics can. Over two thousand years ago, the pythagoreans made the same mistake. Shall we not learn from their error and profit from Aristotle's admonition? Descartes did not learn; he attempted to make philosophy mathematical, and failed. Neither is psychology mathematics. If it is, then Behaviorism and Psychology cease to be, cease to exist, have absolutely no claim to existence! "Entia non sunt multiplicanda sine necessitate;" so Occam's razor would dispose of the Scientific Behaviorist.

Shall we or can we ever get mathematical certitude in the study of human behavior? Here is the opinion of Aristotle, as paraphrased by that Aristotelian authority, W. D. Ross:

"We must be content to answer it with the accuracy of which the subject-matter permits. Ethics is concerned with 'things which are for the most part so,' 'things which are capable of being otherwise,' and we must not expect in it the perfect demonstrations that are possible for a science, which, like mathematics, deals with 'things that are of necessity.'

Ethics reasons not from but to first principles; it starts not with what is intelligible in itself but with what is familiar to us, i.e., with the bare facts, and works back from them to the underlying reasons... Mathematics deals with a subject-matter the first principles of which are acquired by an easy abstraction from sense-data; the substance of mathematics is the deduction of conclusions from these first principles." 36

This same sound opinion can be readily applied to the physical sciences and Behaviorism. We can never demand that the variable element in human behavior will give us the metaphysical certitude of mathematics, or that Experimental Psychology and Scientific Behaviorism is, must be, or ever can be Mathematics or Physics; for at that moment they would cease to be distinct sciences. Shall, then, the Behaviorist maintain:

"When we are faced with the problem of adopting a fundamental assumption toward which the analysis of human behavior might regress, the physicist's electron-proton ultimate theory has the advantage,

(1) that it can be stated in the most effective language responses (mathematics) that have been developed;

(2) that it can be synthesized into atoms, molecules, protoplasm, animals, man, social organization, and

(3) that it can be communicated from one individual to another so that a uniformity (verifiability) among the responses of many individuals can be and has been established. #37

He realizes the only other alternative that can explain human behavior, for he immediately continues:

"On the other hand, the ultimate realities of the professional metaphysician, such as 'thing in itself,' entelechy, elan vital, psychical force, are fictions which cannot be measured, verified, or synthesized into anything more unified than is implied by the term uniqueness, which can neither be demonstrated nor defined. This is the reason why I adopted the electron-proton type of hypothesis as best adapted for the study of human behavior. #38

What an unscientific position the Scientific Behaviorist maintains! Since, as he says, the entelechy or psychical force

cannot be measured, it is not an ultimate reality, but a fiction! Anything that cannot be measured, synthesized and thus verified in a chemical laboratory, is fiction for the Scientific Behaviorist! Love, loyalty, patriotism, must be fictions, too, for they cannot be measured in a chemical or physical laboratory. Because the entelechy, postulated as absolutely necessary by a scientist, Driesch, who dared to face the facts when he faced the reality of the human being, and thereupon modified his theories to fit the facts, because the entelechy of Aristotle, of Aquinas, and of honest, scientific psychology cannot be synthesized or measured by material measuring-sticks, the Scientific Behaviorist declares most unscientifically: "This is the reason why I adopted the electron-proton type of hypothesis as best adapted for the study of human behavior."³⁹ Such a starting principle that is clearly wrong in its germ can never germinate into truth subsequently.

How can the Behaviorist maintain such a narrow and restricted and erroneous position regarding human behavior? He mistook a theory of biology for a postulate of a stable science of human behavior. This is bad science! We have just indicated that behavioristic logic, philosophy are, to say the least, very questionable. How came it about that the Behaviorist accepts in regard to human behavior, scientific mechanism, which is physically mechanistic, anthropologically evolutionary a la Darwin, unreal, and therefore unscientific? It is ultimately due to the unscientific revolt of Science from Philosophy in the sixteenth

century. Following upon the discoveries of Galileo and the Rationalism of Spinoza, the teleological principle accounting for man's origin

"...and of God's dealings with man, is replaced by the principle of mechanism. Science has now become identified in men's minds with the quantitative laws of motion. The Copernican revolution had further emphasized the meaning of the mechanical theory."⁴⁰

DEVOLUTION OF MONISTIC SCIENCE. From this time, it is assumed that the processes of life may be described as quantities of mechanical force or energy. This is universal mechanism, but not universal truth. Such going back to inanimate nature to explain life and vital processes may be "scientific" naturalism, but it is unnatural science. Such a view of human behavior identifies reality with this world, explicitly maintains by "the whole world" nothing more than the sensible world of matter. Yet such a point of view is strictly orthodox and scientific according to the Behaviorist, but it is quite unscientific when its subject-matter is human behavior, because such a realism explicitly repudiates every spiritual or moral reality. And the fountain-head of this unscientific realism is the restricted view of Science: "Science is Physics," or again, "Science is Mathematics." This is not a postulate, this is a prepossession! Whatever else it may be, it certainly is not science.

Although the Dualist denies universal mechanism and organic evolution, he does not deny all evolution. But he does

deny that these dogmas of the modern unscientific scientist are Science, and that the Scientific Behaviorist has proved the following facts by means of Darwinian organic evolution:

1. Origin of life from non-life.
2. Origin of animal life from plant life.
3. Origin of human life from animal life, i.e., from ape-life.
4. Origin of all human activities from matter alone

This attitude of the Dualist is scientific. But the following attitude is not:

"The combined implications of cosmic and biological evolution have destroyed completely the foundations for the hypothesis of human uniqueness or primacy."⁴¹

Professor Barnes is clearly not talking as a scientist when he makes that statement. Since when can conclusions from hypotheses be accepted for verified facts? Is it any wonder that Professor Ryan of the Catholic University objects:

"Evolution is supposed to have made untenable any theory about nature which is not rigorously deterministic... and essentially materialistic... It is to evolutionism as a philosophy that we object...How the truth of biological evolution gives one the right to postulate that ab initio everything was a primordial undifferentiated mass of atoms, or that thought and matter are at bottom one and the same, or that noumenal and phenomenal are but aspects of a common reality, or that human ethics is either a matter of conventions or the result of economic determinations, or that God is but the construction of our own fear impulses---all of this has as much to do with the results of biology as the fantastic elephant which supported the fantastic tortoise which supported the world of Indian mytho-philosophy has to do with modern physical science."⁴²

2. HUMAN BEHAVIOR AND PHYSICAL MOTION

IS HUMAN BEHAVIOR PHYSICAL MOTION ONLY? What stand

does the Behaviorist maintain?

"When human behavior is studied as a form of motion differing only in complexity from the motions and dynamics of physics and mechanics, behaviorism assumes the systematic status of physical monism, of which electrons and protons have been accepted as the ultimate elements."⁴³

But human nature is coordinated in its activities, it is conscious of an abiding entity during multiform reactions, and this knowledge is immediate so that any possibility of error is excluded. How does the Behaviorist account for this unity midst multiplicity in human behavior?

"In adopting physical monism any conscious or psychical entity as distinct from the physical electron-proton entity is, of course, excluded."⁴⁴

The Behaviorist does not account for the human principle of unity amidst the multiplicity of reactions; he simply excludes, he does not explain. Such is the sterility of Behaviorism which hopes to supplant Traditional Psychology!

How does the Dualist meet this problem of individuality amidst multiplicity? What is the ultimate basis of all human achievement? It is a soul, an individual soul for each organism

and the unifying principle of all its activity, that known and immediately recognized abiding entity persisting through and accounting for all human behavior and achievement. Deny it, and you accept an impossible contradiction, a million of independent, individual cellular units organized by chance with a production of billions of variegated, incoordinated processes! This surely will not advance the scientific study of personality and social organization. This is disorganization, chaos. Weiss himself admits the difficulty, for it is inescapable.

"In other words, I assume that the scientific study of what is generally known as personality and social organization can be conducted under the assumption that the physico-chemical continuum is the sole existential datum and that the totality of the electron-proton aggregates is the universe in which we live."⁴⁵

Explicitly, then, the Scientific Behaviorist while maintaining a continuum denies individuality of that continuum, denies personality, and so affirms and denies that a thing is undivided and divided at the same time under the same conditions. This violates that most fundamental principle, the principle of contradiction. Weiss realizes his untenable position, and bravely attempts to ameliorate his irreconcilable, unscientific behavior; then, finally, gives up the hopeless situation.

"Of course, I do not imply that human achievement can now be reduced to the electron-proton formulation. Neither is this possible in physics itself."⁴⁶

Truth must out. The Scientific Behaviorist condemns himself of being unscientific, for even he recognizes that the

intrinsically impossible will never become possible. Yet he qualifies his admission. It is impossible now, but perchance it may be possible later, perhaps aeons later. But this will not save an impossible situation. Whatever is of its very nature impossible, can never become possible, for not even the Almighty can harmonize contradictories. If it were possible, scientific study, and therefore, Scientific Behaviorism would be impossible, would be sheer nonsense. But Professor Weiss is consistent and loyal to his pet theory although he well knows his precarious position and contemporary opposition:

"There are some eminent physicists (Milliken, Lodge, Whitehead, Pupin) who claim that the mechanical conception is inadequate."⁴⁷

And so end all of the explanations of human phenomena under the tutelage of the Scientific Behaviorist. They do not explain. That is the reason why Behaviorism has been known as the Sterile Science. Physics can never become Psychology.

And so we conclude, in spite of the energetic Behaviorist, that physical motion, physical energy, the parallelogram of forces, or in a word, the physical energetic theory of modern psychology, and particularly of Behaviorism, is entirely inadequate to explain, or even begin to explain vital phenomena.

Now we are faced with the problem of discovering why and how the Scientific Behaviorist has assumed such an unscientific attitude, why he has been complicated and involved in such an impossible scientific situation.

HISTORICAL REVIEW OF "ENERGY," Aristotle originated the term "energeia," which, however, the modern psychologist does not use in the same sense. Energy to Aristotle meant actual manifestation of any change, not merely physical or material change. The Power or Latent Potentiality was called "dúnamis;" the result of the change is what the Scholastics call "actus," or "act," due to something "in energy," or according to Aristotle, "'enérgeia."⁸ He gives the following illustration: During the waking state, an act of knowing occurs actually or "in energy," whereas during sleep there exists only the "power" to know.

PHYSICAL SCIENCE IMPROVES ON ARISTOTLE! But physical science appropriated these theoretical terms as her own! The result, too often forgotten, or perhaps never realized, is evidently a superiority complex of unscientific manouvers. Here are some of the evolutionary changes introduced into the hypothesis of mental energy, as first correctly conceived and definitely promulgated by Aristotle, and "modified" by later "science:"

(1) First of all, this concept of energy became restricted to material phenomena. Energy now claimed reference solely to physical movements, but no longer concerned itself with mental changes, as for example, in processes of knowing.

(2) Since the Renaissance, potency and act of the Scholastic, or the "dunamis" and "energeia" of Aristotle, have be-

come the Potential Energy and Kinetic Energy of the science of physics, a persistent entity, always identically the same, at one time latent, and at another time manifest.

- (3) "The third change---and that which is of the greatest importance for us at present---consisted in assuming this persistent energy to be transferable from one thing to another."49

And thus mental energy became by a process of evolution or de-
volution---neural energy! Wm. McDougall, for example, writes regarding contemporary views as follows:

"The constituent neurones of the nervous system with all their branches are regarded as a vast system of channels in all parts of which potential chemical energy is constantly being transformed, in virtue of the normal vital activity of the neurones, into a particular form of active energy."50

Let this discussion suffice to trace the materializa-
tion of mental energy into physical energy. By recognizing a vital principle distinct from matter Aristotle formulated his his hylomorphic theory of matter and form, and form he called energy (energeia); by discarding a vital principle, or soul, the materialistic scientist of today clings to his physical Energetic Theory as sufficient to explain Psychological phenomena.

The next question, then, to be investigated is to discover whether any or all modern Physical Energetic Theories, which are held by practically all non-scholastic scientists, including the Behavioristic psychologists, are sufficient to explain human behavior with emphasis on psychological phenomena.

ENERGETIC THEORY OF PHYSICS USELESS FOR PSYCHIC ACTS.

Can any physical energetic theory explain psychological phenomena? Modern psychologies have built up elaborate mathematical theories and ingenious physical "Energetic Theories" for solving distinct problems of human behavior, as in the operation of knowing. They have strung together raw facts, different interpretation of these facts, and the outcome was a host of laws, not laws in the sense of Physics, but descriptions as of some puerile science.' These psychological laws are in the main truths which the common people know but which the Unscientific Psychologists seem to have discovered for the first time. Here are some fundamental "Laws" of modern Scientific Psychology: 51

(1) A person has more or less power to observe what goes on in his own mind. He can know that he knows. (The Old Scholastic called it "Reflection.")

(2) When a person has in mind any two or more ideas, he has more or less power to bring to mind any relations that essentially hold between them. This the modern psychologist calls the Education of Relations. (It is "Judgment" for the Old Scholastic.)

(3) Third and last law is the Education of the Correlates: When a person has in mind any idea together with a relation, he has more or less power to bring up into mind the correlative idea. Yes, and the Old Scholastic and Aristotle knew and expressed this too.

But no highly technical scientific terminology, no physical or physiological version of mental energy can show how an electron has the innate power to reflect upon itself, no Scientific Behaviorist can demonstrate how an electron and

proton can educe such correlates, as, e.g., "father and son," "white and black," etc.

It is true and undeniable, therefore, that often our physiological energy is interrelated with psychical energy, but we must maintain when facing real facts that in some operations often known as the higher functions of the soul, the psychical energy is intrinsically and essentially independent, as in such abstract concepts of "love and devotion," or in experiences with logical memory of transcendental relationships.

Likewise, without an abiding entity known by the Scholastic as "Person" or the "Ego" it is impossible to account for the "mental span" required in a judgment or a correlation. There would be nothing which would do the comparing, the judging, or the correlating; surely, the unrelated protons and electrons could not do it. And thus we are forced to conclude by objective evidence and a sane consideration of all the facts that discrete electrons and protons, behaving independently, absolutely independent of each other and integrated by no unitary principle, ensouled by no vitalizing and energizing principle whose identity remains essentially constant, can never account for nor adequately explain the higher cognitive processes by any energetic theory or hypothesis which maintains that mental energy "in toto" is nothing more than physical energy "in toto."

3. HUMAN BEHAVIOR AND DUALISM

HYLOMORPHIC THEORY. We shall endeavor to utilize in this discussion some of the general principles of modern and contemporary psychology as a confirmation of Aristotelian and Scholastic scientific psychology. Recently Robert Woodworth, Professor of Psychology at Columbia University affirmed:

"The first principle of psychology is contained in the definition (psychology is the science of the activities of the individual), and that the individual acts as a unit. Without this fundamental principle, often called the "organismic principle," it would be impossible to explain anything in psychology."⁵²

Since the Scientific Behaviorist conceives man as a combustion engine made up of a billion more or less individual entities, and explicitly rejects this first principle of psychology, according to Woodworth, that Behaviorist would find it impossible to explain anything in psychology. The sterility of Behaviorism vindicates Professor Woodworth.

In his "Modern Materialism and Emergent Evolution," published in 1929, Professor Wm. McDougall analyzes the behavior of living bodies, and then enunciates a conclusion consonant to the objective evidence of experimental data:

"It appears on the face of it that the living body is the scene of events which require for their explanation both mechanistic and teleological principles. The acceptance of such mixed principles for living organisms is the essence of doctrines commonly called vitalistic. And within the field of psychology or physiological psychology the acceptance of such mixed principles is called dualism or interactionism; for it implies the interaction of mechanistic and of teleological or mental events."⁵³

McDougall merely restates the old problem of unity in duality, which had been first recognized and solved aright by Aristotle, and which can be solved today only by establishing a similar Aristotelian hylomorphic theory in our study of human behavior. To deny that natural events are not of two distinct orders, the physical and the mental, is not Science but Nescience, is Folly, because it is a denial of undeniable fact.

Vital energy of two orders, mechanical and mental, demands in a living individual but one energizer or energist, which Aristotle called Entelechy⁵⁴ and St. Thomas of Aquin, the Prince of the Scholastics, called Form.⁵⁵ To avoid subsequent misunderstanding, we shall the vital principle, soul or entelechy.

This is not a departure to Medieval or Ancient times. As late as 1929, Hans Driesch in his "The Science and Philosophy of the Organism" uses the same terminology invented by Aristotle. And Hans Driesch knows whereof he speaks! He has long studied animal behavior, he analyzed the phenomena of life

and death, as was forced as a result of experimentation

"...to conclude to a coordinating vital principle in living organisms absent in dead matter, for organic growth from a single fertilized ovum is otherwise inexplicable---and so is regeneration."⁵⁴

But might not a machine located in the germinal Anlagen of Weissman save the position of the Scientific Behaviorist? Driesch denies this possibility according to his own definition of a machine:

"A machine is a typical configuration of physical and chemical constituents by the acting of which a typical effect is attained."⁵⁵

But how can the mechanical conception account for that wonderful phenomenon, regeneration? Divide, for example, a fertilized ovum; you obtain two completely evolved and developed organisms. Divide a machine, and instead of getting two machines, you get no machine. Such reconstructive ability is found only in living matter and must be of a non-mechanical nature. And thus we conclude scientifically with Aristotle:

"The soul or entelechy is the principle or energizer in the vital processes of nutrition, sensation, intellection, and motivation.

"Broadly speaking, the soul is the essence of a determined body."⁵⁶

"Therefore, the soul is the first act of a natural body having life in potency."⁵⁷

"The soul is the principle of nutrition, sensation, intellection, and motivation."⁵⁸

"The soul is the principle by which we live and feel and know."⁵⁹

Aristotle built his Psychology on his Scientific Biology!

CHAPTER IV.

GENERAL PSYCHOLOGY.

A. DEFINITIONS.

If we define psychology as the science of conscious life, then we can personally verify the following facts psychologically by means of internal observation, scientifically designated as the method of Introspection:

- (1) Nutritive processes are unconscious processes.
- (2) Sensitive processes are conscious processes in which a specialized organ is required.
- (3) Intellectual processes are conscious processes in which no organs are consciously required.

During intellectual processes we are not aware of the organ action no matter how intently we attend as we most surely are when we consciously attend to the processes accompanying a sensation of touch.

From our previous discussion, we are forced to limit the term "mental energy" to intellectual processes, to purely psychical processes requiring no admixture of material or physical elements. This indicates our position regarding the higher processes, namely: The soul is intrinsically independent of matter, although matter is a condition sine-qua-non for furnishing the soul "food for thought" in the form of sensuous re-

presentations of objects and entities; in brief, the human soul is merely extrinsically dependent on matter in cognitive processes.

B. RECAPITULATION OF PREVIOUS DISCUSSION BY DEFINITIONS.

McDougall, the former pariah of the scientific world because he championed the existence of a soul, in his "Body and Mind" says:

DEFINING NEGATIVELY:

1. The soul is non-material, for it has not extension or ponderability; therefore, it is not subject to the laws of mechanism.
2. Non-mechanical teleological factors compel us to adopt the hypothesis of the soul as an inextended immaterial substance.

DEFINING POSITIVELY:

1. The soul is a psychic being.
2. The soul is a substance, a sum of enduring capacities for thoughts, feelings, and efforts of determinate kinds.
3. The soul is a unitary being or entity because of unity of consciousness.
4. The soul, being simple, undergoes no development during life, for its capacities are fully present as latent potentialities from the beginning.
5. The mental differences exhibited by any person at different stages of his life would thus be wholly due to the development during life of the brain and subsequent degenerative changes of this brain structure.⁶⁰

Now we have established an adequate foundation for the study of human behavior in accord with the most exacting requirements of scientific experimental psychology, and are prepared to investigate the Soul, Consciousness and Mind, and the Subject "I" or the Ego scientifically and psychologically.

EMPIRIC PSYCHOLOGY.

DEFINED: THE SCIENCE OF PSYCHIC CONSCIOUS MOVEMENT.

IS THE CONCEPT OF SOUL ENTIRELY A NEGATIVE CONCEPT?

We have proved that psychology, in order to be a natural science, must deal not only with matter, but with a conscious self. The Behaviorist, however, objects to a non-material entity:

"But if the properties of this psychical entity are only negative, that is, non-material, non-neural, non-chemical, etc., nothing is gained, and the principle, viz., that no new factors shall be assumed until established principles have been demonstrated to be inadequate, seems the logical course to follow." 61

At this point it is necessary to introduce a pertinent discussion on analogous concepts and on negations, and their contribution to scientific knowledge. Does a negation always deny absolutely? Does not a negation furnish something positive at times? When Behaviorism negated Titchenerism because the latter was running unscientifically wild, did it not ipso facto produce a positive contribution for Psychology? A negative statement does not always imply a negative concept, e.g., when I assert that the Behaviorist is not a Philosopher or a Scientist, I do not wish to assert that he is not, that is, that

does not exist. We must, therefore, conclude that there are some concepts, which although expressed negatively are nevertheless not absolutely or purely negative, but relatively or indirectly produce a most positive concept, although it may be an inadequate concept, e.g., of God, of the human soul, etc. In scholastic terminology such concepts are called analogous or negative-positive concepts. Since these are very true concepts, it follows that the concept of the soul is true and so corresponds to reality. In such wise are all spiritual substances recognized by the human intellect which knows the spiritual being only indirectly through precisions and abstractions from matter. Such knowledge is negative under one aspect, and most positive under another; it is imperfect scientific knowledge, yet most true scientific knowledge.

Professor Gruender of the Department of Psychology at St. Louis University, in "Psychology without a Soul," writes:

"The spiritual soul is a substance; that is the positive element; it is, however, unlike the material substance, it is 'im-material,' i.e., not material; and this is the negative element. But..it is one thing to say that our knowledge of a thing is imperfect, in fact very imperfect, and quite another thing to say that we have ~~(analogous)~~ no knowledge, no knowledge at all. Those who reject all knowledge of the spiritual soul, because in our present life it is, and must necessarily be, imperfect, do what a dissatisfied nurse is warned not to do: they 'pour out the baby with the bath,' as a German proverb has it."62

Some wit has said, was it McDougall, they have even discarded the bath-tub!

1.

EMPIRIC PSYCHOLOGY

I. CONSCIOUS MOTION AND THE SOUL.

That the soul is not an entirely negative concept, but that it signifies a positive reality, is the inevitable conclusion drawn from the previous discussion. We will now proceed to more positive experimental or empirical data.

Human behavior proves the existence of the soul as is testified by the universal experience of all men. Such human behavior is the subject-matter of experimental psychology. Here is a confirmation of the Scholastic and Dualistic Position produced and granted by the Behaviorist himself. We quote Professor Weiss:

"When the behaviorist actually tries to determine which of these conceptions (i.e., the soul, either material or non-material) has been most effective in impressing itself as a pedagogical principle in our educational practice, Stout's conception that mind is to be regarded as a non-material causal agent (the functional point of view) approaches nearest to the one which prevails in actual class-room and every-day practice, no matter how much it may be repudiated in the preface of the text-books or in the theoretical discussions."⁶³

Such pressing, stubborn human behavior implicitly and explicitly vindicating the existence of a soul should give

the Behaviorist warning not to fly "in the face of facts," not to be out of step with human nature and human behavior. His province as a scientist is not primarily to refashion human behavior but to study human behavior as it is. TRUTH grieves him:

"After students have been carefully trained to observe the fine distinctions involved in the mind-body relationship, they forget them as soon as they leave the university. When they get into the business or professional world, they adopt the popular conception of an intelligent mind or consciousness residing somewhere in the brain. The teacher who has had the full quota of psychological courses, talks as glibly of "training the mind" and in the same sense, as one who has never heard of psychology."⁶⁴

The Behaviorist does not refer to true psychology but to behavioristic psychology. Popular psychology with its simple terminology is more correct than the behavioristic, which artificially and arbitrarily has simplified unscientifically to too great a simplicity, and is back again 2000 years to the Grecian cosmologicistic philosophers, who were laying scientific foundations and saw the most obvious, nothing but the material world. The unscientific Behaviorist studying human behavior sees matter, matter everywhere, but not a sign of soul!

Since the Behaviorist will not admit scientifically the existence of the soul but is forced to attend to mind and consciousness, our subsequent investigation will be devoted to these psychic phenomena.

2.

EXPERIMENTAL PSYCHOLOGY.

2. HUMAN BEHAVIOR, CONSCIOUSNESS & MIND.

CONSCIOUSNESS is awareness of the activities of the self. Consciousness is awareness of the activities of the ensouled organism. It is cognition and recognition of such processes as sensing, imagining, feeling, thinking and willing. Has this power of awareness, this consciousness, a Structure? According to the Scholastic, it cannot; for it is not organic, not material. Is it, then, a distinct entity in the strict sense of the term, a something existing in its own right? Scholasticism has been accused of multiplying useless terms and so obfuscating many an issue. Let us first examine, then, what modern psychologists hold.

This problem well merits prolonged analysis. Is consciousness psychical as held by Structural Psychology, by the School of Titchener? Or shall we hold that consciousness is a something that has no physical properties, and that its psychical properties or attributes are (1) quality, (2) intensity, (3) extent, and (4) duration? Will these attributes so far enumerated suffice for a descriptive definition of consciousness?

In the first place, Professor Stout maintains that "consciousness itself is not susceptible of a positive definition."⁶⁵ Secondly, Professor Weiss well interprets our modern psychological perplexities regarding mind and consciousness:

"If I have interpreted Wheeler⁶⁶ and Fernberger⁶⁷ correctly, they both hold to a monistic system and that a physical one. They recognize, however, that in the analysis of human achievement many factors are unknown, and some of these factors seem to be sufficiently different from the biophysical and biosocial facts that we do know, that the old subjective terminology is justified, but the dualism that originally went with it is not."⁶⁸

How in the name of Science and Logic can the Behaviorist in one and the same passage recognize factors that differ essentially from biophysical factors, recognize a manifest dualism and then immediately declare that dualism is inadmissible? This is a plain contradiction to preserve monistic and mechanistic psychology and Unscientific Behaviorism. The conclusion did not follow from the premises cited; neither does the following:

"The Behaviorist concludes that if mental or conscious processes are regarded as particular types of chemical or physical processes of as yet unknown composition, then only one entity or one system of events need be assumed and that it would be simpler to admit that conscience, consciousness and mind are merely terms that are used as substitutes for any real knowledge of the events to which they refer."⁶⁹

And he would be justified and logical in holding this conclusion were it not for the fact that mental processes are not one system of events with physical processes or chemical,

but processes of a higher and entirely different order which is apparently altogether unknown to the "modern mind." These two essentially distinct orders, the physical and the mental, require a dualistic theory. Any purely monistic theory, therefore is unreasonable and unscientific, for it contradicts the facts.

CONSCIOUSNESS AND BEHAVIORISM.

WATSON AND CONSCIOUSNESS. Many a sincere psychologist confessed before 1914 that burying the soul did the science of psychology no good. Yet Watson did not learn from the mistakes of previous psychologists. Let us follow his development:

(1) In his first book, "Psychology from the Standpoint of a Behaviorist," published in 1914, he says:

"The psychology begun by Wundt has failed to become a science because he only substituted 'Consciousness' for 'Soul.'"⁷⁰

(2) At the time of his publication of "Behaviorism, An Introduction to Comparative Psychology," he is indifferent to Consciousness:

"One can assume either the presence or absence of consciousness...without affecting the problems of behavior by one jot or one tittle."⁷¹

(3) But by September, 1927, Watson writes "The Myth of the Unconscious" for Harper's Magazine, and says behavioristically:

"The Behaviorist finds no 'mind' in his laboratories, sees it nowhere in his subjects...if the behaviorists are right, then..

...there can be no such thing as consciousness."72

This, then, is an example of the evolution of psychology from the standpoint of the Behaviorist Watson. But from the standpoint of any truly scientific psychologist it looks as if all trace of psychology had thus far been carefully left out. What remains? After studying Watsonian Behaviorism, Harvey Wickham in his book, "The Misbehaviorists," tells us:

"Psychology is the study of the conscious self. Doctor Watson says not. He thinks that psychology is the study of the reaction-mass."73

And so Psychology has evolved into a study of Physics!

WEISS AND CONSCIOUSNESS. By 1929, for Behaviorism

"Consciousness as a non-physical, spontaneous, self-initiating form of energy does not exist.

Consciousness as an implicit form of behavior or as an obscure physico-chemical process is best described as behavior."74

What argument or fact does the Behaviorist, Weiss, offer for making consciousness entirely physical?

"As soon as social organization and social achievement had reached a certain stage the difference between man and the animals seemed to be more than a difference of anatomy and physiology."75

Darwinian evolution is here stated as a fact. Is it a fact, or has contemporary Science discarded this untenable and fanciful hypothesis? Prof. Weiss himself disbelieves it:

"Man was said to know, feel, perceive, judge, and even create his universe. Cogito, ergo sum, does not seem to be an animal reaction or the product of an automaton...It is this gap between animal and man which behaviorism is trying to reduce to purely mechanical components, and against which traditional and popular psychology are most active." 76

The Behaviorist is trying to make the impossible possible. We, therefore, conclude:

1. Behaviorism, according to Watson and Meyers and Weiss, will never reduce the gap between brute and man, between material and spiritual; therefore Behaviorism is attempting an impossible task.

2. For the gap is not one of mere complexity, but a difference in KIND. Just as vital and non-vital can never be identified, neither can brute and man. Until black becomes white, and white becomes black under precisely the same conditions, then and then only, will brute become man, and man become brute. But such a time will never come, for contraries will ever remain opposed, and therefore, two contraries can never both become true at the same time under precisely the same conditions.

3. Therefore, Behaviorism throws reason and logic and science to the winds, and that is why this thesis proves and maintains that the scientific behaviorist is unscientific.

While we are on the question of science in psychology, it may be instructive to inquire for what scientific reasons the Behaviorist ignores the mind and consciousness, and a fortiori the substance underlying these functions, the human soul, the study of which constitutes, real, honest, scientific, human, behavioristic study.

WHY DOES THE BEHAVIORIST IGNORE MIND OR CONSCIOUSNESS?

Why does the behavioristic psychology make an illicit transition from the animistic conception of human behavior to the mechanistic?

"The behaviorist affirms that his science is a study of the material, biological, mechanical, and social antecedents that are at the basis of human achievement... To speak of investigating a non-material, non-biological, non-mechanical, non-causal entity has simply no scientific meaning." 77

It has no scientific meaning for the Behaviorist perhaps. He it is that is ignorant of an entity that can put life into our mechanical, lifeless psychology. Only a soul can make psychology dynamic! What is it, may we ask, in human beings that is dynamic, that is conscious?

"(1) Either the brain thinks, that is, material substance is the substrate of conscious processes;
 (2) Or the non-material thinks, that is, the soul thinks;
 (3) Or neither the mind nor the soul thinks, but we have conscious processes alone." 78

In this enumeration Moore has included all the possibilities. Wundt held the view of conscious processes alone, a position untenable, because we simply cannot conceive of action without an actor, or a motion without anything moving, or thought without a thinker.

Given conscious processes, we must thereupon conclude that these activities are manifestations of some underlying substance that is responsible for them. Now this substance is

either the brain or the soul; but the brain is material. We shall now prove scientifically and experimentally with Professor Moore that conscious processes are not activities of matter, that consciousness cannot be essentially brain activity.

"If identities are to be identical, and explanations are to explain, we cannot identify our mental life with chemical reactions (life with non-life) or explain consciousness in terms of energy, which is merely that which moves a mass with a given velocity. If one takes a mechanical view of life at its face value, it is nothing but a series of chemical reactions in which molecules, made of atoms, disintegrate one by one and new molecules are formed with the elimination, or by the aid, of heat. Does this view explain how a chemical reaction can be conscious of itself, or how one chemical reaction can be conscious of another?"⁷⁷

A dance of atoms can never be identified with the sensation of red.

"The dancing atoms have no identity whatsoever with, they do not even bear a resemblance to, a sensation. They cannot, therefore, explain even a sensation, let alone the higher thought processes and the activity of the will. If, therefore, there must be some substrate of conscious processes, something which is active when the mind is conscious, and if this cannot be a material substance, then there must be a non-material substance, that is to say, a spiritual substance or soul."⁷⁸

It has been said that psychology has lost, first its soul, then its mind, and finally its consciousness, and so became mechanistic. Let us not lose our mind but loose our mind, let us be open-minded. That is the real scientific attitude. Then we shall be conscious of the fact that the mechanistic theory of today is driving us straight into the open arms of the vitalistic theory of tomorrow!

THE DUALIST AND CONSCIOUSNESS. Mind, then, and consciousness must be regarded not as a material structure of the human body but as a function of the soul. No other position is tenable in experimental psychology as we have demonstrated. According to this view, there is no consciousness as a unitary structure, but conscious processes, not mind but mental processes. If we speak strictly and scientifically, not sensation but sensory processes, not pleasantness or unpleasantness, but only affective processes, not a will but willing processes or activities of the soul. Psychologically, all these processes must be regarded as functions of one and the same essentially unchanging soul.

THE DUALIST AND MIND. If mind is not a structure, if it is not a substance, and if consciousness is a function of the soul, what, then, is mind? It, too, is a function of the soul. How do mind and consciousness differ? Mind is the totality of conscious processes, it is the sum total of those non-material forces controlling our human behavior. Is not mind, then, a structure? It is not, for the sum total of conscious processes can never equal a structure. Stout defines mind similarly:

#A mind is the unity of manifold successive and simultaneous modes of consciousness in an individual whole."79

In other words, we can say with Titchener that mind is the sum total of conscious activities; activities of what? Of an experiencing self, the EGO. This is our next topic.

3.

2. EXPERIMENTAL PSYCHOLOGY.

3. HUMAN BEHAVIOR AND THE "EGO."

Mind has been defined as the sum total of conscious activities. But activities demand an actor, a unity of past and present conscious processes demand a unifying principle, for which, as we have proved, there is no room in the behavioristic electron-proton evolutionary and mechanistic theory. This is another stumbling-block to the Behaviorist. Prof. Weiss writes:

"Professor Titchener more than any other investigator has proposed rigorous definitions for such terms as mind, consciousness, mental element, but inevitably some inner aspect, 'an experiencing self,' proves a stumbling-block against the uniformity in accepting or understanding the definitions that are proposed."⁸⁰

It is not only a stumbling-block, it is an insurmountable obstacle, it is beyond the understanding of the Behaviorist. How did Titchener, himself a crypto-materialist, dispose of that "Experiencing Self?" He annihilated it! And all in the name of Science, of Psychology! Professor Gruender summarizes well the "annihilation of the Ego from Consciousness" in his excellent book "Psychology without a Soul," in the chapter entitled aptly: "THE PROTON PSEUDOS OF MODERN PSYCHOLOGY."

THE ANNIHILATION OF THE "EGO" FROM PSYCHOLOGY IS THE ANNEHILATION OF TRUTH IN THE NAME OF SCIENCE! The Ego, that well-known, directly known abiding entity, must go, must be entirely eliminated from psychology!

"But psychology, if it is to be a scientific psychology, cannot recognize this truth /of the Ego/ as we have heard Prof. Titchener state. And he voices only the general trend of thought among modern psychologists. The datum of scientific psychology is: Thought processes are going on in the world. Scientific psychology demands that mental phenomena be expressed impersonally much as we say, for instance, it rains."⁸¹

But why must the person, why must "I," the Ego, why must this datum which is so unavoidable be excluded, and why must merely impersonal datum be datum of scientific psychology? Why can it not recognize the Ego, the substantial principle of thought? Professor Gruender, who studied under Professor Titchener, gives the following reason:

"The reason, we are told, is because the object of scientific psychology is 'mind, not as popularly understood, but mind accessible to experiment.' Prof. Titchener, however, forgets that mind is really not accessible to experiment except as a substantial principle of thought, expressed by the personal pronoun 'I'. For no mental fact can be observed even superficially, and still less be subjected to experimental research, except by means of introspection or internal experience.. Every act of introspection reveals the substantial subject of conscious states, the EGO."⁸²

Is this last statement true? If it is, how is it possible for Titchener, introspection's champion, eliminatēng all

personality from his psychology, to eliminate the Ego? We challenge him to remove the ego from common parlance. What shall be the result.

"This /the presence of the Ego in introspection/ is so true, that even Prof. Titchener himself in his supreme effort to eliminate the Ego from the expression of internal experiences in that specimen of scientific language which engaged our attention.. ('Mind splits up into consciousnesses, the breakfast-consciousness, the newspaper-and-correspondence-consciousness, etc. ') was obliged to prefix the Ego of antediluvian days in the shape of the pluralis majestaticus: 'To put the matter crudely, WE begin the day with a getting-up consciousness.'⁸³

And so we must agree with Prof. Gruender who must agree with Prof. Titchener, that this is putting the matter crudely, in fact, very crudely, if indeed the personal pronoun must needs be excluded from the terminology of scientific psychology.

If Scientific Behaviorism or scientific psychology denies at the very outset the substantial principle of thought, the Ego or the Experiencing Self, that psychology commits a suicidal blunder.

THE "EGO" AND THE DUALIST. What are the experimental facts of personal experience, of being conscious of the Ego in action? Can these be verified whenever desired? A comprehensive yet brief description which answers these question has been furnished to us by the Professor of Experimental Psychology at St. Louis University, whose psychology recognizes the existence of the soul:

"I am able to observe and study my own thoughts, I can make the reasoning process and my own reasoning Ego, the subject of my study. The marvellous part of this introspective activity of our mind is the perfect identity of the thinking subject and the object of thought. This power of introspection is one of the main sources of rational psychology and the *sine-qua-non* of empirical psychology..."⁸⁴

The next psychological fact punctures materialism.

"Now this mental phenomenon (the fact of perfect psychological reflexion) finds no analogon in the realm of the material world; nay more, it is in direct opposition to the known properties of matter...that an atom act upon itself is repugnant to the known nature of matter. Yet every hypothesis, making the brain the organ of introspective thought, meets precisely with the difficulty just mentioned."⁸⁵

What, then, does psychology with a soul and with an Ego maintain scientifically by experimentation by means of introspection?

"Through psychological reflexion we never perceive the Ego except in some act of cognition or volition, sensitive or rational...A thought or volition without a subject is never met with in our experience; we always perceive the thought and volition in the concrete, i.e., the Ego thinking, the Ego willing."⁸⁶

A study of human behavior, therefore, convinces us that we always catch the Ego in action. Destroy the Ego and there is no human activity. The Ego with its power of Introspection will ever remain the pillar, the *sine-qua-non* condition of Experimental, or more strictly speaking of Empirical Psychology.

CHAPTER V.

"SCIENTIFIC BEHAVIORISM" IS UNSCIENTIFIC.

1. UNSCIENTIFIC BEHAVIORISTIC POSTULATES. Is the galaxy of postulates of the Scientific Behaviorist scientific? Here is nebulous array of nebulous Behavioristic "postulates:"

"(1) I assume that a reformation of the psychological postulates is justified, if it/Behaviorism/ establishes a methodology which replaces the mind-body dualism by a systematic monism based on the assumptions of the physical sciences."⁸⁷

This thesis has proved the impossibility of the replacement of the mind-body dualism by systematic materialistic and mechanistic Monism. The Behaviorist Weiss "postulates" that

"(2) The postulates are assumed to be forms of motion."⁸⁸

Materialistic monism has never justified this ancient assumption. The Scholastic philosopher might ask: "How can an immaterial being move from place to place if it is not in a place?" But this question would be beyond the comprehension of Materialistic Behaviorism.

"(3) The universe is the sum of the movements of its fundamental elements, the electrons and protons."⁸⁹

This thesis has demonstrated the existence of non-

material entities in the world, and consequently the Behavioristic world-view of the universe is inadequate.

"(*) The totality of these evolving dynamic electron-proton systems: /evolving from/
 free electrons and protons,
 atomic types of organization,
 molecular types,
 inorganic crystalline types,
 organic protoplasmic types,
 Unicellular types of organization,
 Multicellular or organismic types;
 these in turn evolve into the
 Compound multicellular or social types of
 organization...

The totality of these dynamic electron-proton interactions forms the movement continuum, or the Cosmos."90

This thesis has ~~disproved~~ the assumptions of such a Materialistic and Darwinian Evolution. The basic assumption of such an Evolution is that the Cosmos originated and evolved entirely and only by Chance. If the Scientific Behaviorist will prove to us that by casting alphabetical block he can by chance compose a Shakespearean drama, then we shall believe him when he assumes and "postulates" that this Universe, this orderly Cosmos evolved by chance!

"SCIENTIFIC BEHAVIORISM" IS UNSCIENTIFIC.

2. Unscientific BEHAVIORISTIC COROLLARY.

It is evident that Science is not Mathematics, neither does Psychology with its study of vital behavior and human actions and reactions become identical with Mathematics. But the Scientific Behaviorist evolves an unscientific corollary from his unscientific assumption of electron-proton evolution.

"Traditional psychology regards man as being controlled by a sort of spirit man within the physical man and that the measurement of human achievement is the measuring of so-called processes as attention, perception, wishes, volitions, images, etc.

The behaviorist regards man as a link in the chain of physical processes which make up the universe and with this assumption goes the corollary that the measurements of human behavior and of human achievement are of the same order as physical measurements."⁹¹

It is a fact that to some modern scientists Science is identified with Mathematics. We repeat: Science and Mathematics are not synonymous!

This is a fundamentally erroneous corollary evolved from the hypothesis, which today is untenable, that man is a machine, nothing more nor less than a complex automaton made up

of nothing but billions of electrons and protons arranged by chance and maintained by chance in most marvellous configurations as yet unfathomed by Physical Science.

In this thesis we have demonstrated that Empirical Psychology can never be identified with Physics or Mathematics, for human behavior does not without exception always fall into the category of Matter. It should be evident to Behavioristic psychologists that Psychology needs a different measuring-stick for such processes as thinking and willing than a yard-stick or a micrometer rule. For Psychology there is none other, especially in the realm of Introspection or Reflexion, that is or ever will be available while human nature and human behavior remain what they are, than the Conscious Ego, than this discarded Experiencing Ego, without which even the yard-stick or the micrometer rule would be useless.

"SCIENTIFIC BEHAVIORISM" IS UNSCIENTIFIC.

3. UNSCIENTIFIC BEHAVIORISTIC ETHICS.

The Behavioristic Psychologist becomes and evolves into an Ethical Philosopher. Here is the treatment on the Ethics of human behavior which does no credit to Scientific Behaviorism. Here is the evidence, quoted from Weiss' Behavioristic Theory:

"If the assumption that a rigid mechanism may underlie human behavior and human achievement has a probability sufficiently high to receive scientific recognition, then in the formulation of the future program of social control there will be a reaction against some of the norms which have been developed under a traditional and nonscientific ethics."⁹²

This is not scientific, this is ridiculous! There is not the probability of one chance in a trillion that this Cosmos has evolved according to rigid mechanistic and Darwinistic "postulates." But the Behaviorist is undaunted, he is brave, he thinks that his theory may some day attain "a probability sufficiently high to receive scientific recognition." Much less this being Science, it is not even gambling, for the Behaviorist has not even a gambler's chance for his dreams to come true.

Since mechanistic behaviorism is non-scientific be-

it is erroneous to maintain that man has evolved from "primeval ooze" and nothing more, such erroneous and unscientific psychology is not entitled to generate and evolve scientific behavioristic ethics. Scientific ethics must ever be based upon a true knowledge of human nature. It is a historically undeniable fact that human nature is essentially fixed, and so it follows that morality and human ethics in their fundamental principles are fixed essentially and eternally. But the Behaviorist, Weiss, believes in ethical evolution also.

"Extending the time limits backward to the beginning of the species homo sapiens, anthropologists would probably predict increasing variability. This seems to speak against the stable equilibrium principle and against the probability of an unchanging norm for human behavior." 93

No need to remark more than that some of our modern Anthropologists, as prophets of Darwinian Evolution, have turned out to be False Prophets. But the Behaviorist unscientifically believes them. He bases his entire science of Behaviorism upon their predictions, upon the "Variability" of their shifting sands:

"Of the four types of theories presented, the VARIABILITY theory...based upon life from non-life...seems to conform best with the facts found in the evolution of human behavior..." 94

We must interrupt such nonsense! Darwin and Huxley and Spenser and Stanley Hall have introduced nothing but erroneous foundations when they propounded the theory of Unilinear

Evolution, life from non-life. The works of Kircher, Loeuwenhoek, Schwan, Spallanzani, Pasteur and Tyndall have given the death-blow to that false hypothesis: "All life from non-life." The only scientific fact that we know regarding Evolution, which is incontrovertible, is: "All life from life." Interpreted negatively, this means: "No life from non-life."

But Professor Weiss logically concludes:

"The variability theory seems to conform best with the facts found in the evolution of human behavior, and the behaviorist's problem thus becomes that of showing that this variability may be a mechanical function of biophysical and biosocial causes."95

The unscientific aspect and the 'immoral' probabilities of the Behavioristic quest, engender a scruple in the mind of the Behaviorist:

"If normality is measured by the degree of stability of the species, the terms good and bad mean something different than if normality between internal and external relations is based upon the extension of geographic range, or on an increase of population. There are strong objections against introducing ethical implications into animal behavior but in the face of the fruitfulness of the phylogenetic method in the study of human behavior, this objection is likely to vanish."96

We leave the Behaviorist with his scruple. Whatever the Behaviorist may be, psychologist, philosopher, ethician, one thing is sure---and it is precisely this that our thesis aimed to prove---THE "SCIENTIFIC BEHAVIORIST" IS NOT SCIENTIFIC.

"SCIENTIFIC BEHAVIORISM" IS UNSCIENTIFIC.

4. UNSCIENTIFIC BEHAVIORISTIC BIAS.

After lauding natural science, Prof. Weiss says:

"From social science we have secured better organization, better training, but we have scarcely started on the path of an equitable distribution among individuals of the benefits of science. For too many of us more machinery means less leisure. The benefits of science are wasted upon a few at the expense of the many."⁹⁷

This knowledge is common property. But

"The benefits of science are wasted upon a few at the expense of the many. This is a vestige of the type of ethics in which every individual was regarded as the servant of some superhuman being or force by whom or by which his social status was determined at the time of his birth."⁹⁸

Professor Weiss is not speaking here as a Scientist and Psychologist but as an Ethician! He is planning a program out of his own specialty; he is plainly beyond his ken. He seems to have confused Nietzsche's Superman with the All-Perfect Being! His thesis is untenable in the light of the historical research of our own day. His attitude has been characterized as a "conspiracy against the truth." It is a "spotted" heritage of the Protestant Revolution. It is an unscientific attitude of a materialistic and mechanistic "science."

CHAPTER VI.

SUMMARY and CONCLUSION.

I. A problem and conflict arise when the Behaviorist explicitly condemns all other psychologists as unscientific, and declares himself to be the only scientist and psychologist who studies human behavior scientifically. This claim is challenged and investigated in this thesis: "Is the 'Scientific' Behaviorist Scientific?" The two conflicting theories regarding the basis of human behavior are presented and analyzed: (1) the position of the Behaviorist, who is a materialistic and mechanistic Monist, and (2) the position of the Dualistic Vitalist.

II. These positions evidently are fundamentally contradictory; therefore, one must be false. We discover that in defining his ultimate basic position and fundamental principle the Behaviorist makes the fatal error of confusing a postulate, which is a proved fact, and an assumption, which is an unproved hypothesis.

III. The opposition between the Monistic Behaviorist and the Dualistic Vitalist is essentially and fundamentally a conflict between Hylomorphic Dualism and rigorously deterministic, evolutionary mechanistic, and "scientifically" Darwin-

istic, electro-protonistic, ontogenetically and phylogenetically recapitularistic, unequivocally Behavioristic Monism. According to the Behaviorist, human behavior is merely the energy of physical motion which can be calculated and determined and predicted with metaphysical and absolute mathematical precision. This position manifestly contradicts every-day experience regarding the freedom of individual human behavior. The Vitalist, therefore, relying upon direct experience and scientifically legitimate empirical data, does scientifically maintain that a part of human behavior is undeniably free and is physically and morally undetermined before the act is posited. He is supported in his view by Common Sense furnishing to his Thesis the Universal Consent of Mankind. He, the Dualistic Vitalist, is the champion of this Popular Psychology, which is refined but unchanged essentially by Empirical, Experimental, or Rational Psychology.

Reviewing the History of Psychology with its materialistic errors, from the time of Plato and Aristotle through St. Thomas Aquinas and Mercier to this our day to whom human behavior and Scientific Psychology was an absorbing problem, we can see clearly that, in order to avoid errors and really explain human behavior, we are forced to accept the hylomorphic theory of matter and soul, of these two principles, one of which is material and inactive, and the other is spiritual and dynamic. This theory does not admit that deadly epigram: "All life from non-life!" which the Behaviorist accept unquestioningly, but which is scientifically inadmissible.

IV. Next, the scientific, psychological views of the Behaviorist and Vitalist are contrasted and investigated as to their scientific validity and degree of cogency when the following problems are analyzed:

1. The subject-matter of General Psychology.
2. The subject-matter of Empirical Psychology.

This Special Psychology, experimenting with a human being and his behavior, demands a study of:

1. Human behavior and the vital principle, or Soul.
2. Human behavior and Consciousness or Mind.
3. Human behavior and the Experiencing Subject, Ego.

This scientific investigation reveals the fact that the Behaviorist does not do what he promised and set out to do, namely, to explain the phenomena of human behavior; he either denies these phenomena or deliberately ignores them.

V. This concluding chapter reviews facts and arguments previously offered. Its conclusions prove beyond the least possibility of doubt that the "Scientific" Behaviorist is amazingly unscientific in his study of human behavior, with his

1. Unscientific postulate, which is an assumption believing mechanistic and darwinistic evolution as true;
2. Unscientific corollary, believing all of human behavior to be physical motion and mathematically sure;
3. Unscientific morality, of the laissez-faire, individualistic, godless type, theoretically discarded;
4. Unscientific prejudice, denying God and deifying Man. The Behaviorist should know that only a fool says in his heart: "There is no God!"

APPENDICES.

PROLOGUE.

Catholic Psychology is Scientific Psychology because it is true and universal. Other psychologies, as, for example, Behaviorism, are only partially true, because they only discern the human in man and are blind to the divine in him. In the following appendices, it is my intention to discuss human behavior in so far as it is an imitation or participation of Divine behavior, for human life is essentially an imitation or participation of Divine Life! The Behaviorist denies God and recognizes only mechanical energy to be a fact in human behavior; the Vitalist knows that man has life, but that God is Life, and he knows that energy exists, but that God is the Energist!

Since the phenomenon "Motion" is characteristic of all life, and since the Behaviorist has confused vital motion with physical motion until he has identified material and psychic motions, we propose, with God's help, to discuss:

1. Human behavior is vital action, is vital motion.
2. Does motion prove the existence of God?
3. Whence comes vital motion?

APPENDIX I.

WHETHER HUMAN BEHAVIOR IS PROPERLY VITAL MOTION?

Vital motion demands life. What is life? To answer, we must ask first: "What beings have life?" Considering the characteristics of living beings in the world around us, it is clear to us that those beings are properly called living that move themselves by some kind of motion, whether this motion is properly so called or motion in a more general sense, as when predicated of the act or "energeia" of a perfect thing, as "understanding" and "feeling" are called motion. Accordingly, all things are said to be alive that determine themselves to motion or operation of any kind.

And what is life? To live is nothing else than to exist in this or that nature, and life signifies this living or existing, though in the abstract.

Hence, to say that a thing is alive is to predicate of it something substantial and not merely accidental. Sometimes, however, life is used less properly for the operations from which its name is taken. In all events, life implies some kind of self-movement.

Has man life? Not only has man life, but he has it in the highest degree of all visible creation. To prove that this

is true, let the behavior of living things be produced as true experimental evidence. In this discussion, living motion will be emphasized. It must be noted that "motion" here is used in a technical sense, namely, the passage or transit from one state or stage to another state. Thus, it may be said that different phases of living behavior, different living phases of activity are different living motions. It may further be said, that the more perfect is vital behavior, the more perfect is this vital or psychic motion.

In the lowest order of living things, at the very bottom of the scale of psychic activity and vital movement are the plants, beings which have characteristically immanent action of bodies endowed with a psychic or vital principle, but which do not feel or understand or will. By immanent action is meant that plants operate from within, that is, that they move themselves, when this term is used in our technical sense, namely, the passage from one state to another. Casual observation of plant behavior is sufficient to convince anyone that these beings possess the characteristics of living things, such movements as nutrition, growth, reproduction, regeneration, decay and many other anabolic and katabolic processes.

But plants possess only one of the three specific movements of living things. Specifically, these three movements are vegetation, sensation, intellection. That plants lack powers of cognition must be conceded until experimental or

objective evidence prove the contrary.

In a higher order must be classified the vital movements of animals. Ordinarily, an animal is said to live when it moves itself; and as long as such motion appears in it, it is considered to be alive. By its own natural powers, an animal moves itself from place to place. Its activity, therefore, is also immanent, a characteristic of living beings alone. Such operations are called immanent and manifest vital activity whose principles are within the operator. In virtue of its vital principle the animal produces a characteristic, animal operation of which the plant is incapable, namely, movement from place to place or locomotion.

But animals possess a still higher type of vital motion; they manifest sense cognition. Their end organs for cognizing sensible objects are analogous to human organs. To deny sense cognition to animals as a property endowed them by nature is to render their locomotion purposeless.

It has likewise been observed that the more perfect the sensorium of animals, the more perfect is their power of self-movement. Such as have only the sense of touch move so slowly as to be almost indistinguishable from plants; whereas such as have true sense power besides touch, not merely cognize objects in contact with them, but objects apart from themselves. As these animals can cognize objects at a distance, they are found to possess locomotive powers in proportion so that they

can move themselves to considerable distances by progressive contractions and relaxations.

A more perfect degree of live and psychic motion is found in intelligent beings. That which progresses by a reasoning process from a principle to a conclusion, or from concrete and specific instances to a general law, can be said to possess a higher species of psychic motion. If, further, in such beings, understanding is considered as a species of psychic motion, of a psychic transit from one state to another, that which understands undubitably itself is very properly said to move itself. Such movement is characteristically human movement; therefore, human behavior is properly vital motion.

APPENDIX II.

DOES MOTION PROVE THE EXISTENCE OF GOD?

There are two kinds of movements or actions or motions, transient and immanent. In transient action a being effects a transference of energy from itself to another, energy goes out of it to another and so effects a change in some external matter, as in heating or cutting; in immanent motion, the action remains in the agent, as in acts of understanding, willing, or feeling. Transient action is a perfection of the thing moved, not of the mover. Immanent action is a perfection of the agent. Immanent action is called movement because of its similarity to transient action. Transient movement, the only one the Behaviorist sees and properly cognizes, is something imperfect, something which exists potentially. Immanent movement is a perfection and is not potential, but actual. Motion in this second sense belongs most properly to God, less properly to man. God moves Himself, and man imitates God in this behavior, inasmuch as that which understands itself is said to move itself. And so motion, that is Immanent Movement belongs most properly to God, and is less perfect in man.

The argument for the existence of God can be proposed

according to the "dunamis" and "energeia" theory of Aristotle, or potency and act of St. Thomas. Let the Behaviorist here note that Aristotle's "energeia" is toto coelo different from the mechanistic, physical and material energy of Modern Science.

We enunciate the principle: "Whatever is moved, is moved by something else" (quidquid movetur, ab alio movetur.) This principle means that nothing moves itself when used in the widest sense, or that whatever moves from one term to any other term is moved by another thing. It strictly means (and so is here accepted) that whatever passes from "dunamis" to "energeia", i.e., from potency or potentiality to act, must be actuated by something else.

As regards living beings in this life we admit that they have movement of themselves, but only partially and imperfectly. In some way or other they require something else, at least to initiate the movement, even though it be self-movement. Moreover, in so far as they come into being and thus pass ex potentia in actum, they require something distinct from themselves, according to the above principle.

It is God, the Universal Mover (Plato) Who gives motion to all beings. He alone does not move in the sense of passing from potency to act, He is therefore the Motor Immobilis (Aristotle); but He does move most Perfectly in the sense that He understands and wills most perfectly. Therefore, God is at once the Prime and Ultimate Mover of all being, Himself being unmoved, and Perfection Himself moving Himself alone.'

APPENDIX III.

WHENCE COMES VITAL MOTION?

The Behaviorist is seeking the answer to human behavior and to all vital motions in matter, "in mud!" Will he find it? If our previous proofs are true, and they are, the beginning and end of life, the Alpha and Omega of Life and of human behavior is God, the Motor Immobilis! For God is life and Life is God. Behavior and Motion in the most perfect sense, with no admixture of matter or any other imperfection is found in God alone. If the Behaviorist wishes to study pure and unadulterated motion, here is his opportunity - let him study Perfect Motion, let him study the Perfect Mover, God Himself! The Life of All Living!

"Seek life wherever one will, it will be found in no one but God. Draw 'the bolt of Nature's secrecies'; study the 'swift importings on the wilful face of skies.' Life is not there.

"Rejoice in the evening, when she lights 'her glimmering tapers round the day's dead sanctities.' Life is not there.

"Laugh 'in the morning's eyes!' Triumph and sadden 'with all weather'; weep with heaven and make its 'sweet tears' 'salt' with your own. Life is not there.

"Lay your heart to beat against 'the red throb of' the 'sunset-heart...and share commingling heat.' Life is not there.

"Delay the quest for life until 'mangled youth lies dead beneath the heap' of years and days 'have crackled and gone up in smoke.' Life is not there.

"Go out beyond this 'mist of tears' and 'running laughter,' travel 'across the margent of the world,' trouble

the 'gold gateways of the stars,' smite 'for shelter on their clang'd bars,'... 'rise from this valley of death,' repose not, rest not in this imperfect communion of created life with created life; be satisfied only where 'hid battlements of eternity are reached, where there is life which is the Infinite Communion of the Infinite with Itself, the Original Life of all Beings, the Eternal Life whence has emanated all that lives---God, the LIFE OF ALL LIVING, the Life of all living. By it the angels are immortal; but It our souls have an imperishable existence; by It the animals move and grow; by It the plants have their being.

"If It should disappear all earthly life would fall into nothingness for all life on this globe is borrowed. Life is not a push from below but a gift from above; human life is not a perfection of animal life; it is an imperfect representation of Divine Life. There is no spontaneous generation in this world, either naturally or supernaturally. Life must come from Life.

"When we return to It we live, when we depart from It we die---and that Life---the Divine Life---the only Life, the Life which all seek, many without knowing it, is the LIFE OF GOD, the Life wherein all life rests; the Father, Son and Holy Ghost to Whom be all honor and glory forever."

(Ref. - THE LIFE OF ALL LIVING - Rev. Fulton J. Sheen, pp.35-8.)

L. D. S.

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