Does a Consistent Soul-Theory Exclude the Animals?

By

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TO MY WIFE,

IN WITNESS OF HER LONG,
FAITHFUL AND INSPIRING COMPANIONSHIP,

THESE CHAPTERS ARE DEDICATED.
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INTRODUCTION.

While strolling one day about the campus, I happened to enter the Spooner-Theyer Art Museum; after a cursory examination of those exhibits that appeared the more prominent, and that seemed, at the time, to satisfy my curiosity, I hastened to leave the building. By way of departure, however, led across the street, and there, almost just opposite the building which I had just left, were the open doors of the Museum of Physical History. Without any conscious motive, I ascended the long row of steps which led to the entrance. Here, too, my examination was hasty, and unsystematic, yet in some way, notwithstanding, my rapid inspection of the rows of exhibits, whether of art, or of Physical History, I saw in each of them a new meaning. Although at first, it was shadowy, yet later, it became a lasting impression; for since that day, I have viewed the same objects often, but each time with a more definite and searching inquiry.

The source of my lively interest, when the new meaning of these exhibits dawned upon me, is not difficult to trace; for my major course in the University had dealt largely with the subjects of matter and mind; and whether the one, or the other was the truer reality. Following the completion of my course, a thesis was now in order, and a serious difficulty, then, arose over the selection of a subject. In this dire extremity, after having spent weeks in considering and rejecting possible subject-matter, my thoughts suddenly reverted to the museums and their train of associates; the one representing the Psychical, the other the Physical side
of existence; for in the exhibits of art, I saw only a concrete expression of the human mind, likewise, in the objects of nature, although physical, yet in them, too, I saw only a concrete expression of the infinite Mind. For me, then, mind is the truer reality. Accordingly, for a subject, I have chosen a Soul-theory, which does not exclude the lower animals.

It is usually considered fitting for an author to state in the preface that his contribution is meant to fill a gap, which was the result of an oversight of a previous writer, or that it would correct some sort of deficiency. Of this character of apology, however, I am relieved. For the following pages are not a voluntary offering, but represent only an honest effort to meet a requirement of the university.

The profundity of the subject, I confess, would challenge a mind of the highest order, and it may occur to the reader to ask why a dilettante in speculative thought should assume to dilate on a subject so far removed from the practical world, and involved in the deepest of mysteries. The answer to this must be the same as that given in explanation for my writing at all; namely to satisfy a requirement; for I had no other choice than the selection of some subject that had a bearing on my course. Hence in this respect, I am again the creature of circumstances.

Although it is true that a dissertation concerning Scholastic philosophy, or a review of Plato's Dialogues might have sufficed as subject matter; yet, I must admit my interest in these would not have been near so keen, or steadfast; for since the days of my tender youth, I have been
curious to know what were the foundations of our belief, aside from revelation, in the existence of a human soul. Starting out with this objective firmly fixed in my mind, I have studied quite diligently the authorities, who affirmed that the soul was an entity; later, I also studied the reasonings of those who held that the human soul was only a derivative. The result of this laborious study not only confirmed my former belief as to the validity of the soul, but also persuaded me that the scope of the theory is too restricted, if humans only come within its purview, hence this thesis will maintain that a consistent soul-theory includes both humans and animals.

In order to approach the subject with some degree of method, and with a fairly clear presentation of the principles involved, it is deemed advisable at the outset to give a brief summary of the two rival theories of existence, which are usually styled Spiritualism, or Animism, and Materialism. It is likewise expedient in order to strengthen our position to strive to expose the inherent weakness of Materialism, which refers consciousness back to sensation, and then identifies sensation with the notion of the atoms, which also attributes the power of constructing the world to the atoms, molecules and their modifications.

In my tedious and seemingly hopeless search for the permanent amid the perpetual flow of the phenomenal, I surely would have faltered, if not have fallen by the wayside, had not my worthy preceptors sustained me by their generous assistance and hearty encouragement.
Professor Wheeler, head of the department of psychology, has made me a life long debtor; words are inadequate either to express my sincere regards for Professor Wheeler, or to convey a measure of my sense of obligation. Suffice it to say that virtue is its own reward.

Professor Hollands, head of the department of philosophy, has a claim upon my affections, which neither time, nor circumstances can affect. Although his criticism at times may have been caustic, yet his heart is big and responsive; he is ever ready to wade in and set afloat a student stranded on the shoals of perplexity. I shall always consider my enrollment in his department a rare privilege.
Chapter 1.

Ancient Animism Identifies the Human and Animal Soul.

"The soul is but an empty word." #1.

This terse sentence has been the standing declaration of materialistic Philosophy since the days of Democritus. It has survived despite Christian theology, and has come down through the ages discredited by the vast majority of mankind, but never quite vanquished. As this ancient and sweeping statement makes no distinction between different kinds of possible souls, it might seem presumptuous to proceed with the development of our theory with respect to the animal soul, unless at the outset, we enter a general denial to the allegation that the soul is but an empty word, whether used to designate the mind and spirit of humans, or of animals.

If it be true according to the dictum of common sense and Spiritualistic philosophy that the word soul when applied to man represents an immaterial entity, then, upon this supposition, we would be in a position to attempt to draw the inference that animals, too, have souls. Hence, it is our theory that the probability of the animal soul depends upon the certainty of the human soul. No human soul, no animal soul. The converse of this is probably true, but it would be too bold an assertion to make at the opening of our discussion, besides it would be tantamount to assuming our conclusion, or a mere petitio principii. Therefore, in order to justify our future inferences and for the purpose of logical sequence, the claims of the two rival theories, Animism and Materialism must now be given careful consider-
The Soul theory had its origin among primitive men. Just how primitive these men will probably forever remain a mystery. But in this connection, the question concerning the growth and development of their culture is both pertinent and relevant as it has a bearing upon the origin of the early conception of the soul. "There are two theories in regard to culture: the Progressive-theory and its rival the Degeneration-theory. (§2) The former resolves itself into two assumptions: First that the history of culture began with the appearance on earth of a semi-civilised race of men: and second from this stage, culture has proceeded in two ways, backward to produce savages, and forward to produce civilized men. While the Degeneration-theory holds that the original condition of man was one of more or less high culture."

The Progressive-theory is the result of Ethnological research, while, the Degeneration-theory is purely a Theological deduction. History has also a development-theory, which is based upon actual experience. In this theory both advance and relapse have their alternating epochs. But as our investigation carries us beyond the pale of historical events, a theory based upon actual experience would not serve our purpose. The Progressive-theory appears, at least, more compatible than the Degeneration-theory with what facts we have of
the pre-historic world. In accepting it, we assume that the advance of culture from savagery to civilization was a gradual movement, which require many centuries for its consummation. If this be true, then, existing savagery stands directly intermediate between animal and civilized life; also savagery and civilized life may be considered as indirectly connected through their common origin; a further implication of this theory would assuredly justify the assertion that at some remote period, in the dim and misty past, the primitive man emerged from his original, unknown and mysterious habitation, and faced the world unenlightened by either revelation or philosophy; for in the absence of any record, we would hardly assume that there was a favored race. Man in that remote age has left few landmarks to show the way that he has passed. But if the Progressive-theory holds true, we may assume that the present day savage is a fair representation of the primitive man. In this way alone is there a possibility of penetrating the countless centuries that shroud the origin of the conception of the human soul; in the reality of which the men of that day, under all conditions of life, whether savage, or semi-savage have universally believed. This in itself has been deemed tantamount to a valid and adequate proof. How can we explain the universality of the conception in ages where the difference in language alone would render impossible an interchange of ideas; and even if a common language had been existent, still the means of communication were so limited as to preclude the possibility of inter-communication? But,
moreover, not less singular is the fact that among the men who are living to-day there is a diversity of opinion concerning any possible conjecture; yet there is less diversity of opinion in respect to the existence of the soul, than any other alleged truth. So in this matter, at least, the pre-historic man and the modern man stand on common ground; for at the dawn of reason, these primitive people, savages, or semi-savages, not here, or there, but in each inhabited part of the earth asserted and confirmed the existence of the soul. Thus, when Animism was born, theology was not dreamed of, and Jewish and Christian revelations and Democritus's Ataministic theory were among the contingencies of the future.

Those who seek to discredit and explain away this early conception of the soul, and the significance of its universal acceptance resort to many curious, cunning, and ingenious theories, which they offer as a satisfactory explanation of how the conception arose and gained credence. All such explanations insinuate that these early advocates of Spiritualism became bewitched by some disturbing dream which resulted in an illusion and this illusion was afterwards personified as a soul. As an example of these interesting speculations, we quote the following: 

"My own view is that nothing but dreams and visions could have ever put into man's head such an idea that of souls being ethereal images of bodies. It is thus taken for granted in Animistic philosophy, savage, or civilised, that souls set

free from earthly bodies are recognised by a likeness to it.
which they still retain."

It is obvious that this clever solution of the mystery assumes that these early people experienced both dreams and visions; yet waiving the assumption, how does it happen that all these men, regardless of race, color, language, creed, or place of abode, have dreamed so synchronously, and so correspondingly alike? Moreover, these dreams—probably not different from the ordinary dreams, which, as we know, are susceptible of diverse interpretations—had the strange and peculiar effect of producing in the dreamer a belief that his sleep had been disturbed by the manifestation of some departed spirit? If this is the way that the belief in the soul came about, then, as a reasonable inference it amounts to a direct revelation.

Whether man became possessed of the idea of the soul through revelation, innate ideas, dreams, or pure imagination is a mystery not less insoluble than that of his own origin. But since the idea is and was from the start universal and continuous, it surely rooted in its origin upon a substantial basis regardless of that may have given it birth. Hence, we offer this universal belief in the soul, which was extant at a time prior to any known revelation, or visitation from above as cumulative evidence of the existence of the soul.

This universal belief in a soul is the basis of ancient Animism. Whether, it came; how, it came, and when it came are questions that can provoke only conjectures; for its origin like the origin of life is hidden in the remoteness
of time. It is, however, favored with many definitions, and among others, we select the following: §4, "Animism is the distinctive philosophy of the primitive men, which explains the phenomena of nature by the hypothesis of a spiritual agency." As no other philosophy preceded it, Animism marks the beginning of analogical reasoning.

Before proceeding further, it is now necessary to call attention to Naturalism, in order to avoid the hazard of confusing it with Animism. §5, "Naturalism, which is the conception of power everywhere, must be distinguished from Animism; for it is antecedent to Animism. In Naturalism things are not regarded as living because they are the abode of spirits, but as living on account of their own proper powers, or because of their self-power." In this stage of life the indefinite something, which men fear and attempt to propitiate is not a spirit, but an invisible power.

Hence that they worship, and seek to conciliate is a power, or influence which works for evil rather than good; and is present in all the manifestations of nature. They do not attempt to go deeper into the mystery, or to give a specific name to the object to which they sacrifice their victims; as power in some form is there, and on this conclusion they rest. This conception is essentially impersonal in its character, and less definite than the idea of spirit. For at this stage, men had no notion of the subjective and the objective. Just how long Naturalism held sway is a matter of
conjecture. But that it once existed is proven by the lives of modern savages, who can not conceive what is outside their minds, or what is inside them.

In view of our definition, it is obvious that these ancient people considered Animism the master key with which they could open and lay bare the deepest mysteries of both human existence, and also those of nature in general. Was this belief a mere fancy, or a revelation? has it stood the test of time against the theories of more enlightened ages? The answer to these questions must be in the affirmative, for even unfriendly critics admit that it has. In support of this we quote from a high authority as follows: "Yet it is evident, notwithstanding, all of the profound changes, the conception of the human soul is, as to its most essential nature, continuous from the philosophy of the primitive thinker to that of the modern professor of theology. Its definition from the first has remained that of an animating, separable, and surviving entity, the vehicle of individual personal existence." Although the theory has been refined from time to time, yet such refinements have neither been approved, nor accepted by the majority of the people, who still cling to the original Animistic belief.

The scope of Animism is world-wide. Man is not favored therein exclusively; for animals, plants, and inanimate things share alike in this wholesale distribution of spirit. And why not? In not making an exception of animals, plants, and inanimate things, these early philosophers proved them-
selves to be logicians in advance of the development of that science. 77, "The explanation of life by the theory of an indwelling, and practically immortal soul is one which the primitive man does not confine to human beings, but extends to animate creation in general. In so doing, he is more liberal, and perhaps more logical than the civilized man, who commonly denies to animals the privilege of immortality, which he claims for himself."

Accordingly, the animist endowed the mental constitution of animals with the same faculties that he believes to exist in the human mind, and among these, are feeling and intelligence. Hence analogical reasoning led him to the inevitable conclusion that the animal, too, has an immortal soul. The implications of belief with respect to the animal soul are many. One striking example of this is apparent in the reluctance of these early people to take the animal's life. As it was their universal custom to spare the life of the animal, so the only plausible excuse for a breach of the custom was hunger. This deference for life in general arose out of the belief that the soul of the animal survived the death of the body. Hence it was feared that the immortal spirit of the slain animal would haunt the slayer, or in some way do him evil. If anyone, however, was driven to the necessity of taking the life of an animal, it was invariably the practice to attempt to propitiate the victim by means of some incantation, or otherwise.

The principle of Totemism was likewise consistent with
animistic reasoning. It was based on the supposition that an alliance of some sort existed among certain species; i.e. they either recognised and respected the relation of kinship, or they were knit together by the obligation of the blood-feud, therefore, they not only feared the spirit of the dead animal, but also feared those still living, who were bound either by kinship, or by the obligation of blood-feud to avenge an injury done to anyone of their members.

From the foregoing, it is obvious that the ancient Animist in some measure, at least, anticipated the Darwinian theory; for it was their teaching that there was not merely a close connection between humans and animals, but that the animal stood in the relation of the ancestor to man. This tie of kinship, as we have seen, was further elaborated in the mysteries of Totemism, an alliance of some character for mutual advantages between a man and some animal of his choice. Hence Totemism is a deduction from the principles of Animism, and is cited here for the purpose of showing the early belief in a community of spirits, a doctrine that is not strange to the present day.

A further advance of this analogical reasoning invested a spirit in both plants and inanimate objects. And on the same parity of reasoning, no distinction as to wrong could be drawn between the slaughter of an animal and the felling of a tree. This doctrine rested on the inference that action, or motion is an attribute of all living things. Accordingly,
the most noble tree as well as the most insignificant shrub were endowed with the same spiritual essence, which differed only in degree. In consequence of this argument, it was a universal belief that the rose of indescribable beauty, as well as the ugly shrub, or the mighty tree of the forest had, each one of them, a personal life under the control of a will. Since inanimate objects are motionless, it would seem probable, at first sight, that an objection might be taken to this argument investing them with a spiritual nature. But the facts and theory are still made to coincide, for the Animist remembers that in dreams his spirit wanders to far-off places with a consciousness of unhindered activity, even while his body lies motionless. Hence there is no break in continuity of his line of argument when he attributes to the motionless rock, or other inanimate substance an indwelling spirit, that like his own, has the inherent power of activity.

One of the consequences of the notion is the shifting of responsibility for a personal injury, which might happen to an individual coming in contact with an inanimate object. The Animist does not admit of any plea of contributory negligence on his part; for the rock that injured the foot is invariably charged with the sole blame. In harmony with this ethical notion, he attributes the scratch of the brier, as well as a more grave calamity, to the intention of the object which has injured him. Historical confirmation of this practice is not lacking; in England the law of Deodand was a statute until recently, which provided that not only the beast that killed a man, but the cart wheel that ran over
him, or a tree that crushes him were deodands, or gifts to God, and were forfeited, and sold and the proceeds given to the poor. This is perhaps a survival of the animistic doctrine, which attributed spirit to inanimate objects.

Investing natural objects with a spiritual substance is a principle of Animistic philosophy, which does not have a direct bearing upon the question, herein, at issue. Yet, it might be well to affirm that even in this extreme extension of the theory, the Animist does not stand alone. To one who has studied Leibniz's Metaphysics of Substance this principle of the Animist, in spiritualizing inanimate objects, does not appear so unreal, or strange. "The thing in itself" is still an unsolved mystery. The Animist was limited to a choice between matter and spirit, he chose spirit as the elementary substance, and even, now, it is prudent to suspend our judgment until a more satisfactory analysis of substance is offered. Having no knowledge of the laws of reflection, how was he to account for the returning echoes; having no knowledge of the laws of the interception of light, how was he to explain the advancing and retreating shadows except that in some sense they were alive. "S, "This inference is supported by modern physics, which in the words of Herbert Spencer allows the thought that consciousness in some rudimentary form is omnipresent."

This cursory glance at the scope of Animism will suffice for our purpose, and now we shall proceed to examine with greater particularity that part of the system which has
a more direct bearing upon our problem that is the elucidation of the soul-theory as applied in animism to both the animal and human soul.

The Animist conceived the human soul as a material entity: "It is described as a thin, unstable human image; the cause of life and thought in the body it animates, capable of quitting the body for a time, or altogether leaving it insensible, or dead, and then thus absent from the body appearing to other persons asleep, or awake. From this conception Animism may be supposed to have had its origin."

Belief in the material element of the soul, and the reality of its objectivity in dreams continued for an indefinite period after the advent of Greek are of philosophy. Many of the Christians emphasized the material element of the soul, and gave a very practical reason for so doing. They argued that it was inconceivable in that manner an immaterial soul could suffer the least harm, or discomfort by the ordeal of fire and brimstone. The Animistic ethereal soul invariably bore a striking resemblance to the body to which it gave life and feeling, hence it was recognizable in the same degree as the body in which it abode; the body was at all times dependent upon the life giving soul. So it happens that when the soul wanders away, and fails to return before the sleeping body awakens, or does not return, at all, the result of such carelessness, or indifference of the soul is the instant death of the body.
It is obvious that from the start, Animism was burdened with many refinements and deductions which are positively irrational in the light of our more advanced and sober thought. Yet these superfluous trimmings are harmless, and do not affect the real merit of the system. Such imaginings have long since given place to the hard facts of experience. In passing, we call attention to them merely for the sake of completeness as they have a place in the literature of the soul. But for our purpose, we are not inclined to attempt to insist on the validity of such wild conjectures. After all, however, Animism does not stand alone in this respect; for we might mention the exploded sciences of astrology and alchemy, or the changing concept of religion.

§10. "The doctrine has undergone extreme modification in the course of culture. It has out-lived the almost total loss of one of its great arguments which gave it popularity—the objective reality of the apparitional soul, or ghosts seen in dreams or visions. The soul has given up the ethereal substance, and became an immaterial entity—the shadow of a shade."

While it is true that metaphysicians have abandoned the idea of double materialism, which means that the soul and body are of the same material substance, and have substituted for the Animist's material soul an immaterial entity designated as soul, spirit, or mind, yet these refinements do not in the least affect the merits of the system. Such refinements are rejected as a superfluous by
the great majority of men; and in respect to questions like
the nature of the soul whose solution lies beyond the range
of human experience, the opinion of ordinary men should not
be rudely set aside. For it is safe to say that from the
beginning of creation, nine tenths of mankind have and do
to-day believe explicitly in the grosser theory. If the
spirit has no mark of identity the hereafter will surely be
a cheerless place of abode. The Mohammedan religion empha-
sizes the fact that the rewards of heaven are material.
In this respect, at least, Islam appears to be more consis-
tent than the Christian theology, whose golden paved streets
are thronged with a countless multitude of spirits without
marks of identification. Common sense demands that the
spirit should be knowable, otherwise the incentive to reach
heaven would lose its most potent power. The implications
of the idea of non identity would undoubtedly lessen our fear
of future torment, and this may not be objectionable, but,
at the same time, it blights our hopes of a material reward,
the only kind of a reward that we have any conception of,
hence a purely rational soul would hardly have satisfied the
expectation of the countless number of men who have come and
gone.

It would certainly be a rash statement to say that all
visions seen in dreams were objectively real, and it would
be equally hazardous to affirm that no dream has ever pos-
sessed objective reality. While it may be true that some
particular person has never had such experience, yet this
would not be in itself an adequate reason for the denial of the possibility of such experience to others. The experience of some of the great mystics, e.g. Saint Augustine, should, at least, render us cautious about making an unqualified denial as to the possibility of objective reality in those visions of reliable men who claim to have had such experience either in dreams or in a state of ecstasy. No one would hesitate to admit that Augustine's power of discrimination between the objective and subjective was adequate to the exigency of the occasion. Can we trust his sincerity and truthfulness in this matter? Yes; because his honor and veracity are unimpeached, then, upon the testimony of Augustine, we affirm the possibility of objective reality in dreams and visions.

The notion of a separable, animating and surviving soul is the contribution of ancient Animism. Through the intervening ages, it has held the right of way; no rival theory has ever appealed to the masses of men. Although our Saviour sanctioned its doctrine, yet metaphysicians have, from time to time, altered the principles of Animism, but their innovations have received little credence from ordinary men. Theologies have been reared upon it, and the moral element introduced, and its acceptance as the true explanation of life is all, but universal. Its absolute verification, however, is still in abeyance; the dead line between matter and mind has not been crossed; Interaction between matter and mind is no less a mystery than it was in that
remote are, when matter and mind were not differentiated. The shades, shadows, and breath, which identified the phantom soul of ancient Animism, have been displaced only to make room for principles and essences of modern metaphysics, a science to which hostile critics have given the name of decaying Animism. Therefore, neither time nor culture has substantively modified the Animistic conception of the soul either for the worse, or for the better. It is obvious that the modern idealistic conception of the soul stands or falls with the principles of ancient Animism; and it is equally true that the idealistic view of substance in its physical aspect, in a similar manner, rests upon the Animistic principle of an indwelling spirit in all inanimate things, or that the essence of matter is spirit, which is saying that spirit is the truer reality.

Now the remaining question for our determination, and one which has a direct bearing upon our problem, is to inquire as to the exact relation subsisting, according to Animistic belief, between man and the animals in respect to the soul. If the Animistic deductions are consistent, rational, and in harmony with the modern view concerning the human soul, and also, its theory of matter is likewise consistent, and in harmony with the present idealistic doctrine, then, is reasonable to assume that its theory with respect to the probability of a similarity subsisting between the animating spirit of man and that of the animal, is deserving of our careful attention. The marvellous self-consistency of Animism is one of its most salient features, hence, it draws
no line of distinction between the soul of man and that of
the animal. Animism disposes of this question, once for all,
by postulating that the spirit of man and the spirit of the
animal are the same in kind, and differ only in degree.
This doctrine should certainly find corroboration in modern
psychology. In reference to this, we quote the following:
"All, "This was obviously brought home to him more forcibly
in the actions of living things. Since these so closely
resemble his own that he saw no difference between himself
and them. Not in this matter alone have the intuitions of
the primitive men found confirmation in the discoveries of
science. For the Indians of Guiana, Sir Everard Liddell
says, in their view: "other animals differ from man only
in their bodily form, and in their various degrees of
strength, and differ in spirit not at all; for just as the
Indians see in the separation which takes place at death,
or in dream, proof of the existence of spirit—all other
qualities being in his view much the same in man and other
animals—he sees proof in the existence of each animal of a
spirit similar to that of man. That they would sometimes
over-power him with their strength, or cut wit him with their
cunning confirmed his belief in their fundamental identity."

The power of intuition is ever active and dominating;
before the laws of Moses were written; before history could
record history; yes, before the dawn of civilization in
old Egypt, the Animist had discovered the unbroken connection
between animal and human psychology. A beast for an ences-
tor was in his eyes no disgrace, and his reason for assum-
ing this position is the same reason that science offers to-
ay; i.e. the mind in man and beast is of the same identi-
cal nature, and that the mental differences between him and
the animal are differences only in degree and not in kind.
In his rude and unconnected way, the Animist tells us, over
again and again, that the descent of man and the lower
animals is from a common ancestry. But the Animist does not
stop here, for he rounds out his conception of the animal
soul by investing it with immortality. He believes as
Tennyson sings in his In Memoriam:

"Eternal form shall still divide
The eternal soul from all beside
And I shall know him then to meet."

Animism establishes a close relation between man and
the lower animals. It anticipates the theory of Evolution,
for Evolution amounts to little more than a revision of
Animistic philosophy. If you deny the animal a soul, in
order to avoid inconsistency, you must likewise deny man a
soul. This is the gist of the Animistic argument. The force
of the argument seems irresistible as it is based upon the
continuity of an unbroken psychical chain that links the
lower and higher forms of life. Hence the soul, if any,
must have been posited in the elemental germ, otherwise, its
later introduction would have broken the continuity of con-
tinuous self-development.

For the purpose of additional confirmation of the prin-
ciples and implications of Animistic philosophy in respect
to its attribution of an indwelling spirit to inanimate things, its predication of a human soul, and likewise an animal soul, we offer the following from Leibniz's Monadology, "Now in this conception, we have the means of removing the gap which apparently still exists between that we know as mind, and the blind workings of force in material nature. This is done through the principle of continuity. According to this principle, there are no breaks in nature. Things shade into one-another by infinitely small gradations; consequently there is a continuous series from the lowest monad up to the highest, which we call souls, or spirits. The life of each monad is a thought life, a life of perceptual activity, but it is thought, which may be infinitely confused. It is this confused thought that constitutes the life of the material monad, and which compared with our own is like a swoon, or a dreamless sleep. What we call souls, on the contrary, are monads in which this confused thought has come to at least a partial consciousness of itself; even in men a large part of the soul life is still obscure. Sense perceptions and feelings are such confused thoughts. It is on account of this confusion that we see the world as material, and not for what it really is--a collection of immaterial beings. Accordingly, there is no difference in kind between souls and other monads, but in degree only; both are spiritual in their nature. However, this difference in degree is infinitely varied, and sufficient to account for all the apparent opposition in the world."

"So far, then, we find reality to be made up on an in-
finite host of individual beings, or monads, representing countless different grades of development. Those lower in the scale are what we call matter; those more highly developed souls; while the highest of all are self-conscious minds, or spirits. The inner nature of these monads is force, or to interpret this in more ultimate terms, an active life consisting in more or less conscious perception, or thought. In the smallest particle of matter, there is a world of creatures, living beings, animals, entelechies, or souls; each portion of matter may be conceived as like a garden full of plants, and like a pond full of fish. But each branch of every plant, each member of every animal, each drop of its liquid parts is also some such garden, or pond. Thus there is nothing fallow, nothing sterile, nothing dead in the universe; no chaos, no confusion save in appearance, somewhat as it might appear to be in a pond at a distance, in which one could see confused movements, and so it were a swarming of fish in the pond without separately distinguishing the fish themselves. It is true that each monad is a thing by itself, uninfluenced by any other monad, nevertheless, there is a real unity in the world—it is the unity of a plan, or purpose which the world reveals, and which has its source in the mind of God."

"With reference to each other, the monads are, indeed, windowless; they develop in accordance with a principle inherent in their own being. But still they are not absolutely insolated. There is a higher reality on which each depends, and a higher purpose which each serves.
And it is this which explains why, inspite of being isolated, the monads yet show a close correspondence. For it is with reference to this universal plan that the nature of each monad is constituted at the start. The course of development which is to make up the life of each in originally determined with the whole universe of other monads directly in view. So by simply following its own course, without interference from any thing out side, it yet runs parallel to and reflects the development which is going on independently in the other monads." §12.

With the following citation, we shall postpone until a later chapter the further consideration of Animism, and its implications bearing on the probability of a subsisting animal soul.

§13, "Animists in germ were our pre-human ancestors, and Animists to the core, we remain."

§12, Leibnitz's Monadology, pp. §217 to §226, Tr. by Robertotto, Published 1893, London.

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#1, La Mettrie's Man: a Machine, p. #97, Tr. by Gertrude Carmon Bussey.
#3, E. B. Tylor's Primitive Culture, Vol. 1, p. #139.
#4, New Werner Twentieth Century Edition of Encyclopaedia Britannica, p. #49.
#5, Edward Clodd's Animism, p. #25.
#6, E. B. Tylor's Anthropology, Page #405.
#7, James George Frazer's Golden Bough, p. #184.
#8, Edward Clodd's Animism, Page #99.
#9, E. B. Tylor's Anthropology, P. #340.
#11, Edward Clodd's Animism, #104.
#12, Edward Clodd's Animism, p. #198.
#13, Leibnitz' Monadology, pp. #217 to #226, Tr. by Robert Letts, 1898, London.
Greek Philosophy Divides the Animistic Soul.

As we have seen, the principles of Animism were the contribution of pre-historic age. The line of demarcation separating it from the succeeding age is not like the famous Papal line, dividing the world between rival nations, but a broken line; for the Animistic age in certain parts of the world persisted longer than in other parts. In no way, however, are we interested in the chronological exactness of its duration; for the only interest that concerns us at this juncture is what, if any of its principles, were carried over as survivals into the succeeding age. Only an approximation can be had of the number of centuries which intervened between the inception of the Animistic age and the dawn of civilization. Even after this stage was reached, there followed a long historical period before we have arrived at the epoch, which marks the beginning of philosophy.

To the Greeks is given the credit of making the first successful attempt at real philosophy. We do not mean to say that the Greeks were the first people to accumulate knowledge; for in other countries especially in Egypt and Chaldea there had been considerable development of knowledge. Yet these people of the Orient did not systematize their knowledge as their classification was based solely on the empirical order, hence there was no fixed principle; for it dealt exclusively with concrete particulars, and adapted itself only to practical use.

The Greeks contribution, which marks the beginning of
philosophy, is the development of the intellectual framework in the shape of abstract ideas, or generalization by means of which it should be possible to analyze and to bring into order the incoherence of the world, resulting from a premature impression of it.

Despite all this, however, the early Greek philosophers did not attain any clear distinction between matter and mind, hence there was no conception of a strictly immaterial existence. They argued that real existence is that which lies outside us in space, which we can see and touch, and nothing else is real. This is contrary to the modern view, for the material and spatial existence must make room within itself for qualities, which we call conscious and mental. It was also the belief of the early philosophers that to attempt to think of anything that was not material in its nature and not occupying space was in effect to think of nothing. In this respect the first Greek philosophers labored under the disability of being incapable to conceive of anything as real, which did not have tangible and visible reality. This one-sided view in regard to reality prevailed among the Greeks until we reach the Socratic period.

In the Pre-Socratic period, the Animistic conception of the soul, in respect to double materialism, was retained.

\[^1\] "It is true that the early Greek philosophers distinguished between the substance of the soul, and the substance of the body, but the substance of the soul was still accounted matter; viz, the two higher elements, fire and air to which Aristotle subtilizing still further added another, or the \[^1\], Alexander Bain's Mind and Body, P. 58."
fifth essence."

In order to understand better the first refinements upon
the Animistic conception of the soul, and to discern just
why fire and air were substituted for shadow and shade, we
must now take notice of another problem connected therewith.

The philosophers of the Milesian school, whose members
are Thales, Anaximander and Anaximenes, had used the concept
change in its ordinary meaning as being self evident, and
assuming of course that there was an underlying unity to this
changing world. #2, "The reality, which changes, must all
the time be one and the same reality at the bottom, or there
is no meaning in the statement that it changes. Nothing
changes except as it becomes different from what it was be-
fore; and there is no something which changes unless there
is an identity or sameness which persists through the suc-
cessive movement of change. And yet if it changes, it must
be different from itself, and not one reality, but more than
one: it must at once persist and pass away. How are these
seemingly very opposite notions; i.e. the One and the Many,
Sameness and Difference, Permanence and Change to be recon-
ciled and combined." Heraclitus for an answer to this
query says: #3, "There is no such thing as permanence at
all." He denies that there is in the universe a static being,
or an unchanging substance, but he affirms that every thing
is in a state of becoming, of continual flux and reflux,
and he illustrates this by saying that, "you cannot step in-

#2, Rogers's Student History of Philosophy, P.#14.
#3, Hunter's History of Philosophy, P.50.
to the same river twice, for the fresh waters are ever flowing in upon you." He makes fire the ultimate substance of the world, whose shifting and unstable flame is thoroughly consistent with his idea of change; for it has the appearance of permanence, yet all the while there is a continuous change in progress. He admits, however, that there is unity in the world; yet this unity is not one of unchanging substance, but the law. The immutable law which constitutes the unity of the world is the law of necessity. The law, he holds, explains all the phenomena of the universe. What keeps the earth going is a mutual exchange between the earth and the sun. This exchange consists of an ascending and descending series, in which the law of necessity is operative. In the descending series the fires of the sun are transmuted into vapor, water, and earth, while in its ascending series the transformations are earth into water, vapor and fire. #4, "The Universe is therefore a closed circuit in which descending and ascending currents counterbalance each other. It is this opposition of motions and the measured balance between them, which produces the delusive appearance of rest and motion." Heracleitus expressly states that man, like the rest of creation, is amenable to the immutable law of necessity." For he is kindled, and put out like a light in the night time." Hence it is the inner fire, according to his view which is the essence of the soul.

Parmenides makes himself not less conspicuous than Heracleitus by choosing the side of permanence; he was #4, Burnet's Early Greek Philosophers, P. #107.
preceded in the Eleatic school by Xenophanes, who had taught
that "that we name God is one immutable and comprehensive
universe which holds within it and determines all the minor
phenomena." And later, Spinoza held a similar view. "God
is the world of nature, regarded as absolutely one, eternal
and unchanging." And even in the present day the same doctrine
is approved by the late Bosanquet in his Principles of Logic.
Parmenides enlarged upon the doctrine, and gave the world its
most paradoxical philosophical system. \( \#5 \), "A system that
made an absolute denial of any change or multiplicity in the
world. He affirms that all apparent change, or multiplicity
is pure illusion; according to his theory only the One
exists. The One is identical with the immutable, comprehen-
sive, and material universe." Parmenides emphasizes the fact
that the notion of change is unthinkable. He argues that to
hold that a thing could arise out of that which is different
from itself is a contradiction. He, also, says that the form
of change, which is the most familiar and simple to us; i.e.
a change in place is inherently impossible. For in his
theory, motion implies the existence of empty space in which
a movement can take place. In his mind, however, emptiness
is unconceivable as he makes being identical with body; there-
fore, he contends that non-being, emptiness, is unthinkable.
He disposes of the notion of space by saying if there is
such a thing, it is being and being moves in being, which is
evidently tantamount to a static condition; on the other hand,
if space is nothing, it is non-existent, consequently nothing
can move in it. No further holds that being is indivisible. There can be no breaks between its parts; for if any cleavage should occur, it is itself being, or body, therefore body is a continuous substance.

These statements are so contradictory to our daily experiences, and are apparently so incredible that at first glance, we are inclined to think them nothing more than a colossal absurdity. Parmenides, however, admits that his system is not in harmony with ordinary facts, nor with our common sense experiences; for in his estimation, facts and common sense experiences are nothing more, or less than pure illusions. In support of his theory, he says, "That if sense-impressions tell us the contrary, then, the testimony of the senses must be rejected; for in the interpretation of the phenomena of the cosmos, the laws of thought are the ultimate authority. In event there is a conflict between sense and thought, in order to be consistent and intelligible in our deductions, we must cast aside the former and rely solely upon the latter." Parmenides is the first philosopher to draw into question the validity of the senses. Hence he is likely to continue to be a prominent character in the history of philosophy as he is the undisputed founder of the school of Idealistic thought, being the first subjective idealist. Moreover, he and Berkeley mark the extremes in time, remoteness and recentness, in the life of subjective idealism.

Idealism may be defined as any theory, which affirms that the universe is the embodiment of mind, or that reality is psychical. It admits of two divisions; viz, subjective,
and objective idealism. In the former every thing—all phenomena are considered as the thoughts of mind, spirit, or God; in other words what we call things are in truth only ideas. In the latter, nature is said to be visible intelligence, and conversely intelligence is said to be invisible nature.

The consequences of Parmenides system are important and far reaching as it is a forecast of one of the two rival systems of thought, which have battled for supremacy, since the days of Democritus and Plato, even unto the present day; one asserting that mind, and the other, that matter was the true reality.

Prior to the teaching of Parmenides, the Animistic conception in respect to the nature of matter had prevailed, which had attributed life to all matter. The term used to express this attribution is hylozoism. Hence all the Pre-Socratic philosophers, possibly with the exception of Anaxagoras, are said to be hylozoists. Now, at this juncture, however, we have a peculiar situation; for on the one hand, we have Heraclitus affirming that reality is changing; while on the other hand, we have Parmenides affirming that reality is one, that sense-perceptions are false, that matter is inert, and that the world, or one is being, or body, which has the attribute of a material soul. It is now necessary, therefore, in order to follow the vague conceptions, which ultimately led to a clear distinction between the material, and the immaterial; sense, and thought; and body and soul.
to carefully review the reasonings of part of those philosophers, who undertook to reconcile the diverse theories of Heraclitus and Parmenides.

Prominent among those dissenting is Empedocles, who was firm in his belief that change and generation did actually exist, and in support of this, he offers the following argument: §6, "If reality is one as Parmenides has assumed, in harmony with all previous philosophers, then, indeed his arguments are irrefragable, and the world of generation has no existence. But if reality is many, and not one, then, we can account for both factors; i.e. permanence belongs to the elements themselves, and change to their shifting relations."

In developing his theory, he has recourse to the principle of separation and mingling. The former corresponds to death, or dissolution in any sense; while the latter corresponds to creation, growth, or the condition of becoming. Hence death is not an end, but only an occasion for the renewal of the process of mingling. In this way, he proceeds to develop the fact that generation is only a change in composition. This new conception, if the nature of the parts had remained identical, would have failed to explain in any manner the phenomenon of change. He, therefore, attributes to each of the parts, which constitute reality a different nature, each part, then, has its own peculiar, and individual nature. Hence, he introduces separate parts, or elements, which are four in number; viz. water, earth, air, and fire. The element of fire is the one that concerns us; for he makes this

§6, Burnet's Early Greek Philosophers, P. 357.
the elementary substance of the soul. The shifting of these four elements and their varying combinations are, in the opinion of Empedocles, a consistent and adequate solution of the problem of change, and at the same time, permanence finds a secure place of abode in the eternal and unchanging elements, themselves. With the exception of Parmenides the early philosophers had attributed to matter life itself; and had assumed that motion was its inherent quality, but as Parmenides had denied motion to matter, Empedocles now deems it advisable to account for motion in a more precise way than by the bare statement that the elements were alive. So in order to provide for the quality of motion and to start his four elements moving; he makes use of the novel and somewhat radical agency of love and hate. Love is the magnet, which draws the different elements together, and holds them in close relation until they are cast asunder by hate, then, through the principle of love the elements are re-combined. These contrary motions of mingling and separation constitute an endless process as there is no alternative for animate things, but the infinite repetition of movement between discord and harmony. This is tantamount to a species of transmigration in which the material soul is dissolved, only to be re-united, and once more started upon its eternal itinerary. In this instance, however, Empedocles, who has no notion of an invisible, and intangible reality, has confused the physical forces of attraction, and repulsion with the mental qualities. His theory of knowledge was based upon the assumption that
the soul knows, because it is a compound of every thing else; i.e. water knows water; earth, earth; air, air, and fire, fire. This notion of the kindship of things, after its materialistic characteristics had been eliminated—for knowledge can not be a material function—not with approval, at least, among those philosophers, who affirm that the world is the embodiment of mind.

Anaxagoras has the distinction of being the first Athenian philosopher. He made for himself a secure place in the history of thought by his criticism of Empedocles four elements, and especially by his near differentiation of matter and soul. The four elements of Empedocles would not suffice, in his opinion to account logically, at least, for the infinite variety of objects. To derive a countless number of qualities from four elements only seemed to him utterly impossible. Such a theory would involve a change of quality, in the four elements, as often as different combinations were formed, hence the probability, or possibility of such a change taking place, seemed absurd. It is obvious, he insists, that there is only a change in position, therefore, we must name instead of four elements as many as there are qualities. *77* "This theory may be called Qualitative atomism as distinguished from Quantitative atomism. Accordingly, reality consists of a vast number of things, or qualitative-ly simple elements, representing every distinguishable aspect of the world." These elements are divisible ad in-

*77* Rogers’s Student History of Philosophy, P. 522.
de minimis, and all of them are contained in each particle of matter. The different aspect of things is due to the varying proportion in which the elementary substances are deposited, and in consequence of only a few of a kind being deposited, the eye fails to detect them, hence arises the notion of difference. Despite the illusion, however, the only change possible is that of spatial position. In the hands of Parmenides, matter had been bereft of motion. So it was imperative, at this juncture, for Anaxagoras as it had been for Empedocles, to re-introduce motion, in order, to round out his system. He did so by making soul, nous, or mind the moving principle. The world, accordingly, is dualistic, on one hand, there is matter utterly inert, while on the other hand, there is soul, nous, or mind, which is self-moved only.

In the history of philosophy, this is the first instance in which there has been a clear-cut distinction drawn between material and spiritual substance. In truth, this distinction is significant, for it gave rise to the principle of Teleology, which asserts that the world is the result of a purposeful plan, and not due merely to the mechanical interaction of the elements. The theories of Teleology and Mechanism have been and are now the bitterest of rivals, and have contended through all the intervening centuries for supremacy, the former holding that the soul, or mind is the true reality, and the latter holding that matter is the elementary substance.

This signal achievement of Anaxagoras, who had won the
proud distinction of isolating the soul from its entangle-
ments with the material, was marred to some extent by a sub-
sequent analysis of the soul in which he attributed to it
material qualities. In consequence of this, it devolved on
other hands to draw the permanent and decisive line between
the material and the immaterial.

In this hasty review of the physical philosophers of
Greece, in respect to their conception of the soul, we find-
with respect to the soul—that there has been no marked ad-
vancement of thought, if any, beyond that the Animistic age.
It is true that the soul of shade and shadow has given place
to the soul of fire and air. Hence double materialism con-
tinues to be the order of the day; for true reality must
still be the occupant of space, and must still be visible and
tangible; for being is only body in which the minute part-
icles shift their position, and in so doing provide the
plausible explanation for the phenomena of change.

In their views, however, we discern two distinct lines
of thought; despite the constant jar of conflict between the
rival theories. In the first place there is a noticeable
disposition among them to regard the soul as subtle and
etherial as well as refined in contrast with the grossness
of the more solid matter; and in the second place, there is
likewise an apparent tendency to view it as the active prin-
ciple of nature; the self-moved and the cause of motion in
all corporeal things. These Pre-Socratic philosophers were
enabled to make a better showing in precision of definition
than those of the animistic age by making use of their physical speculations in respect to their classification of the four elements, and in their distribution of the several characteristics of these. But the nearest approach towards an immaterial soul was the reasonings of Anaxagoras, who, as we have mentioned, cast aside the four elements of Empedocles, and set up nous, or mind as the ultimate substance of the soul. Yet in the end, nous, too, by his own analysis became materialistic.

The transitional period of philosophic speculation in which the drift of thought passes from a physical to an ethical problem is made memorable on account of the prominence of those who made the innovation. For it was the idealism of Socrates, Plato, and Aristotle, which forced the materialistic theory into the background, where it lay dormant for two-thousand years.

The leading Sophists were incessantly directing attention to the relative character of all knowledge, and were emphatic in their denial of any absolute standard of truth. In harmony with this assumed relativity of knowledge, Protagoras asserted: "That man is the measure of all things, and that contradictions are equally true."

\( \text{#8}, \) In reply to this Socrates says: "Accordingly, he finds that permanence does not have its abode among the sense-perceptions, nor in the flux of phenomena, but in thought, or concept. In consequence of this Socratic con-

\( \text{#8}, \) Hunter's History of Philosophy, P. 565.
ception, the truer reality is not according to Parmenides Being, or body, nor according to Empedocles the shifting of the eternal elements, but on the contrary, it is mind, or soul. Hence the origin of the modern theories in respect to the soul is found in the teachings of Socrates. In the philosophy of Plato, this Socratic distinction between the Ideal and the Sensible is so broadened and deepened as to render it, forever, indelible, and to make it the foundation of all future thought in respect to the status of the soul. #9, "It starts from the doctrine of the eternal self-existing Ideas, or Forms, which were anterior to what we call the universe. The human cranium is a little cosmos containing a rational and immortal soul of adulterated materials, while in the body there are two inferior and mortal souls; the higher of the two is situated in the chest, and manifests energy, courage, and anger; the lower one is placed in the abdomen, and it displays the appetites. The two lower souls are disturbers of the rational soul. In comparison with the loftiness, and purity of the eternal Ideas, the cosmical soul was a compromise between the Ideal and Sensible."

In this conception of Plato, the Animistic soul is cut in twain; i.e. it is divided between thought, the soul proper, and the senses, which are the organs of the body. In support of his doctrine of Ideas, Plato brings to his aid his famous theory of reminiscences in which he says: "Our thoughts are but recollections of former things seen by the

#9, Bain's Mind and Body, P. #105.
soul in a prior existence." If this were not true, according to his view, it would be impossible for the mind to conceive of abstract terms as beauty, equality, and justice, therefore, since Ideas cannot come from sense-perceptions, nor is there any plausible probability that they were present in our minds from birth, it follows, that the only explanation to be found is the Platonic conception of a former existence. And further, in accordance with this doctrine, the human soul, prior to its incarnation, dwelled in the celestial world of true reality, and there it saw and knew the changeless Ideas of which our thoughts are only a faint recollection. Moreover, even under the present conditions, we are not totally deprived of these former visions; for they can in a manner be restored to consciousness, and the process of restoration is the intense and protracted exercise of thought. To substantiate this assertion, we have only to advert to the fact that the mind's interpretation of things in general cannot be reduced to a mere collection of sense particulars.

Plato's rational soul, spirited soul, and sensational soul are separate and distinct, and each has its special location in the body, therefore man's nature is not a unity, since if it were a unity, it would be impossible to account for the sharp conflict between the rational soul and the two inferior souls. This warfare of the souls is carried on without intermission of a truce throughout the life of the individual; and apparently, there are no exemptions for any
man, but each and every one is doomed to undergo the same ordeal, although, it is quite probably that the strife between souls of different organism is not of the same intensity.

The shade and shadow of Animism, the air and fire of the Physical philosophers as descriptive characteristics of the human soul, were thus cast aside by Plato, who holds that it is the mind which constitutes what may properly be called the soul, and that the senses are mere functions of the body. He maintains, however, that there is a close relation between the soul and the senses, which were intended to be subject to the soul, and used in its service as the body exists for the sake of the soul. In Plato's soul theory, it is obvious, that no one could have laid more emphasis than he did upon the truth of the existence and the immortality of the human soul. Yet he committed the sin of not adequately reconciling the One, and the Many; Pernance, and Change; and Sameness and Difference. For he attributed to Ideas only the first term of these correlates; consequently, he leaves all the concrete matter of the world to take care of itself. He is aware, however, that his theory is too dualistic as the connection between the Ideas and the world, between the soul and the senses was, indeed, hazy. In order to meet his own criticism, he, afterwards, endeavored to bring the two extremes into closer relation. Accordingly, he advanced the conception that things imitate, or participate in the Ideas. In this way the Ideas are
rendered less remote, and in a way, at least, the One and the Many are reconciled.

Plato was firm in his acceptance of the Teleological theory of Anaxagoras, and he enlarged and systematized it, and used it as an argument to discredit the mechanical theory of Democritus. And in doing this, he also called attention to the fact that the true significance and interpretation of the world was revealed in the whole, and not in the separate parts of the world. In the philosophy of Plato, as we have previously mentioned, there is the world of Ideas and the world of things, each being far removed from the other. Now, in the opinion of Aristotle, this wide separation between the two was fatal, if the Ideas were to be utilized; hence, he undertakes to make the relation between the Ideas and things less dualistic.

Before we begin, however, to unravel Aristotle's conception of the soul, it is expedient that we examine first his metaphysics with respect to his four causes: (1) Matter is the material cause; i.e. what anything is made of. (2) Form is the formal cause; i.e. the type, form, or design of the maker. (3) The efficient cause, or prime mover; such as human muscles, water, wind, or whatsoever is the force employed. (4) The final cause; i.e. the end, or purpose.

In respect to the Aristotelian doctrine of causes, it is advisable, before proceeding further, in order to make their application intelligible, to introduce the following concrete example: 

10, "What is it, we mean; e.g. by an

10, Rogers's Student History of Philosophy, P. 103.
oak tree? Is it merely a collection of particular parts, which go to make it up, or an object in space? But where shall we start to make such an analysis? If we take the acorn—and there surely is a sense in which the oak tree already exists in the acorn—, we shall get one result; if we wait until the tree is full grown, we get another, and a very different one. The idea of the tree evidently includes more than we can sum up in any one moment of the tree existence. All the processes by which it changes from one stage to another—from the acorn to maturing, from maturity to decay—also belong to the complete notion of what a tree is. Nor is this all. The mere description of parts misses completely the unity of organism, that which makes it a single object. We must also bring in the use, which each part serves in relation to the other parts, and to the entire organism—to make the idea of the tree as a whole. If there were no idea, if the particular parts were everything, there would be no tree, but only a series of molecular changes. There are two things especially to be noticed in this conception. In the first place, reality becomes a process of development. Hence, any complete description of the tree will have to include in some way the whole course of its life; for only by reference to the entire process can the particular stages and organs be placed and understood."

In the process of the development of the tree, it is obvious that Aristotle has succeeded in rendering his system far less dualistic than that of Plato's; for at his bidding the Ideas have descended from somewhere in the re-
notoness of the blue sky, and are now masquerading under the pseudonym of things. In other words, form and matter have become relative terms. The One, Permanence, or sameness is here identified with the process of development in which the life process is itself the end. It is worth while to recall the fact that Heraclitus, in his process of Becoming, had reached the same conclusion, but it remained for Aristotle to show that in the act of becoming a purpose, or an end is invariably accomplished, thereby a unity is revealed, which had entirely escaped the notice of Heraclitus.

Aristotle invests matter with the attribute of potentiality, which is equivalent to saying that in matter, there is a possibility of something that is at present unrealized; i.e., for an example, a seed is the material from which a plant may eventually develop. Such a plant would have Form, or Idea, which represents actuality, or fulfilment; e.g., the acorn represents the possibility of potentiality, while the tree represents the actuality of form. It follows that if things did not embody the Idea, they would not become the objects of knowledge. To express the notion in a different way, we might say: "That the Form, or Idea is the inner meaning expressing itself concretely in the material form." The transition from the potential to the actual is attributed to motion, evolution, or a development. In our world pure form does not exist; for everything is a mixture of both Form and matter, consequently there is a graded series of realities; Matter as to that lies above it is the
scale; and Form as to what is lower down. Thus the tree is form, if compared with the components parts which were derived from the air and earth; and on the other hand, it is matter, if compared with a structure made from its timbers. It is evident that Aristotle's theory implies the substitution of a changing, or dynamic reality for the static reality of Plato's eternal and self-existing Ideas. At the end of the series of graded realities, we reach pure Form, the Absolute, or God. Unmoved Himself, He is the mover of the universe, towards Whom all creation moves by inner necessity. Aristotle does not hold that the reason, which is apparent in the world process, is generated by the process itself, but reason is imperatively implied as a condition of conceiving an intelligible world. In view of this preliminary and quite general observation upon the Aristotelian system, it is probable, that we may now have a better understanding of that part of his theory which has a direct bearing upon the problem of the human soul. §11, "In this antithesis of matter and form, the potential and the actual, the soul is identified with form, and has the body as a correlate; i.e. they are relative and correlative. The implications of potential matter, and the actualizing form is the totality of a living being. Accordingly, the soul stands thus, the first actuality of a natural organized body having life potentially."

To matter is assigned potentiality which requires form, §11, Brain's Body and Mind, P. §108.
the actuality, or fuller reality. Generally speaking, as we have heretofore stated, matter and form are correlates, but there is one significant exception, which adds uniqueness to Aristotle’s doctrine of the soul. There are three varieties of souls according to his view: (1) The nutritive, or plant soul, which is the soul of digestion, nutrition, and propagation of species. Like other souls, it partakes of the celestial heat, which gives animated bodies their warmth. (2) The animal soul is distinguished from the plant soul by having, in addition to the nutritive element, a sentient element, which accounts for the animal’s superiority. (3) Next, in order, comes the noetic soul. Nous, or intelligence, which cognizes the universal, and the abstract, and has two modes: (a) The receptive intellect, and (b) the constructive intellect. The former perishes with the body, while the latter is separable from the body, and is immortal. Now, we are in a position to take notice of the significant distinction which characterizes the noetic soul, a distinction, which in the minds of many, is a logical inconsistency. For Aristotle holds with respect to the plant and animal soul, that these particular souls are correlates of matter, and perish with their bodies, and also that the receptive soul does likewise, but with respect to the active noetic soul, it alone is capable of enjoying a separable, immaterial, and an immortal existence, therefore, the noetic soul is not a correlate of matter.

In this connection, it might be worth while to note the fact
that Aristotle applies the term soul to all the characteristic functions of living bodies from the nutrition of the plant to the intellect of men. Accordingly, of the four causes, the body furnishes the material cause, while the soul contributes the formal, efficient, and the final cause.

Even, if Aristotle has repudiated his own definition of the soul by affirming that the noetic soul has no bodily organs, yet we must admit that his making the human soul the entelechy of the body, for whose sake the body exists, has in some degree, at least, set the soul and body in a less dualistic attitude. For, in harmony with his gradation of souls, there still dwells in man a vegetative, and also an animal soul, but they now exist for a higher purpose; i.e. as instruments of the noetic soul, whose functions are the transformation and unification of the sensations of the vegetative and animal souls into knowledge. Hence this trinity of the souls constitutes an abiding unity, which no other philosopher, heretofore, had achieved. Especially is this obvious, when we contrast the Aristotelian and the Platonic conceptions of the soul, for in the latter there is an interminable strife between the senses and the intellect.

In a succeeding chapter, where we shall discuss the animal soul more in detail, more attention shall be given to Aristotle’s deduction in respect to the noetic soul. But, even here, it might not be out of place to observe that such a notion of immortality, while probably pleasing to a philosophic mind of the highest order, like the mind of
its author, or his friend Plato, and possibly to a few others, whose greatest pleasure is contemplation; yet, at the same time, this notion does surely appeal the vast majority, whose only preparation for future life is manual training.

In Greek philosophy, the soul theory gets its final illumination from Neo-Platonism, which is the last system of the Greek philosophy. Proclus, one of the disciples of Plotinus, the founder of the system, was expounding its doctrines, in the Academy at Athens, as late as the year 529, A.D. But this memorable year marks the valediction, not only of Neo-Platonism, but of all Greek philosophy. As it was during this year, at the instigation of Emperor Justinian, that the doors of the Academy were closed, the teaching of Pagan philosophy forbidden, and Proclus and his associates were driven into exile.

The system of Plotinus is somewhat less dualistic than that of Plato's, for he makes the Ideas the components of thought. The world, according to his view, is an eternal battleground. The rational soul typifies God, while the appetites are symbolic of the devil. In this way he makes matter the embodiment of evil. Hence his line between the Ideal and the Sensible is not less distinct than that of Plato; for there is the same discrimination against the senses, and the same predilection for contemplation. Plato, while making God the highest reality, had identified Him with the Ideas. Plotinus, however, conceives God as an infinite blank, Who lies far beyond the Idea itself; whose
attributes are unknowable. If Plotinus had stopped at this juncture, it is evident that the separation between the Ideal and the Sensible would have been widened to such an extent as to surpass even the dualism of Plato. #12, "Plotinus attempts to overcome dualism and to find unity by two devices: (1) Matter is a mere non-being. (2) A graduated scale of existence. As regards the first, he holds that matter is not a substantial substratum out of which as material the world is built, therefore, evil is not a substantial fact. Just in so far as a thing is, as it partakes of reality, it is good; it is evil, or material only in so far as it is not, in so far as it is lacking. In regard to the second, the graduated scale of existence is the means by which the gap between God and matter is bridgeed. These graduated existences connecting God with the material world, and at the same time affording a plausible explanation for its glaring imperfections, are: via, the Logos doctrine of Philo, the countless scenes of the Christian Gnostics, and the Demonology of Plutarch. "In this manner, responsibility for imperfections is shifted to subordinate and derived existences; consequently, despite the very visible imperfections, still our belief, in absolute perfection, is not violently disturbed." By the theory of Emanation, Plotinus is able to account for the phenomenal world, which is a result of falling away from the original perfection. It cannot be described as a partition of the #12, Hunter's History of Philosophy, P.#150.
original unity as it is not made up of parts, but consists of an indivisible whole, which still retains its completeness. #13, "For as a light shines into the darkness and illuminates it, and at the same time sustains no loss of brilliancy, so the workings of God overflow, as it were, without lessening the reality of their source." Or, in other words, as the rays from a luminous body extend themselves with a decreasing intensity, and are finally, at a remote distance lost in the surrounding darkness, so the presence of the Absolute is manifested with varying degrees in the constitution of the phenomenal world. In our own world, this emanation is represented by mind, soul and body, each of which wears a double aspect. The mind is the product of the One, and it turns toward the One as being the true reality; on the other hand, the soul is the product of the mind, and, therefore, the mind turns also towards its own product. In this mutual relationship, the mind is the image of the One, and the soul is the image of the mind, while the body, the last stage in the series, is the image of the soul. Accordingly, the human soul is a hybrid as it partakes of both the Ideal and the Sensible elements.

In the following quotation, a re-statement of Plotinus' view in respect to the soul is given: #14, "The One, or the primary essential, is the original unity from which all things have sprung. It is neither nous, nor reason, nor #13, Weber's History of Philosophy, P. #160.
#14, Alexander Bain's Mind and Body, P. #140.
anything cognized by reason; for each of these necessarily implies the other; and the nature of the Primary as absolute unity forbids it being identified with anything that implies duality. Things emanate from the One as rays emanate from the sun. The direct product of the One is nous, which is an image of it. The image involuntarily turns towards its original in order to behold it and through this act of comprehending what is super-sensible, it becomes nous. In the nous, the Ideas are immanent, not as mere thought, but as its component parts. The soul is the image and the product of nous as nous is of the one, it also in turn produces the corporeal; and it turns partly to nous its producer, and partly to the corporeal its product.

There is therefore in the soul an ideal indivisible element; and a divisible element from which the material world is produced. The soul is an immaterial substance. It is not a body, nor is it inseparable from the body; for not only nous its highest principle, but even memory, perception, and the vegetative forces are separable from the body. The body is in the soul, and not the soul in the body."

We shall see later that Plotinus's analysis of the soul produced a tremendous effect upon the new Christian theology as well as upon speculative thought in general; for a retrospect of Greek philosophy discloses the fact that four men, viz. Socrates, Plato, Aristotle, and Plotinus are responsible for the origin of the notion that the soul is an immaterial entity. While the theories of Plato and Aristo-
tle admit that animals have a soul, still they discriminate in making the animal like the vegetative soul co-existent only with the body as death ends all except the rational soul. Now in view of Plotinus's analysis, however, it seems more reasonable that such a discrimination is both unwarranted and purely arbitrary. Our purpose in making mention of this divergence of opinion is pertinent as we shall have occasion to refer to it in our final discussion of the subject. In another respect, Plotinus appears to have taken an advanced position; for he affirms that the body is in the soul, and not the soul in the body. This new thought is elaborated by later metaphysicians, who have found in it a plausible argument in support of the belief that the soul is immaterial.

The burden of the soul theory is borne by those, who are known as idealists, whose creed is defined more particularly as follows: #15, "The idealist, looking first within, perceives that self-consciousness is the great fact of life, and that consciousness expresses itself in words and deeds; then he looks outward, and is aware of another consciousness that expresses itself in the lovely grass as in the stars of heaven. Looking inward, he finds that he is governed by ideas of truth, beauty, goodness and duty; looking outward, he everywhere finds evidence of truth and beauty and moral law in the world. He sees, moreover, that while his body changes constantly his self remains the #15, Long's American Literature, P. #142.
same yesterday, to-day, and forever; and again his discovery is a guide to the outer world, with its seedtime and harvest, which is but the symbol, or garment of a divine self that abides without the shadow of change in a constantly changing universe. To him the only reality is spirit, and spirit cannot be harmed by fire or blood; neither can it die or be buried for it is immortal and imperishable.
Chapter III

Ecclesiastical and Scholastic Adaptations and Contributions to the Soul Theory.

Apparently, neither Saviour, nor his immediate disciples gave serious consideration to the metaphysical problems, in respect to the soul, which were current in his day. #1, "But the unclean spirit, when he is gone out of the man, passeth through waterless places, seeking rest, and findeth it not. Then, he saith, I will return into my house whence I came out; and when he is come, he findeth it empty, swept, and garnished. Then goeth he, and taketh with himself seven other spirits more evil than himself, and they enter in and dwell there; and the last state of that man becometh worse than the first. Even so shall it be also unto this evil generation." This and other passages in the New Testament are characterized by an emphasis upon demonology, and in so positive a manner that we are led to the inevitable conclusion that our Saviour was a confirmed Animist, and gave little, or no credence to metaphysical distinctions which had rendered obscure the ancient doctrines of Animism.

According to the Old Scriptures, it was the Hebrew belief that at death the good and the bad shared the same fate, that in Sheol, there was no distinction made between the good and the bad, for it was the common and inevitable end of all. Hence no one received any reward after death; #1, Matthew, Chapter 12:43:44:45.
#1, Luke, Chapter, #11, 24; 25, 26.
yet a long life was presumably given worthy men, and this comprised their sole reward. The early Christian dispensations robbed the tomb of its terrors by inventing the soul with the Animistic principle of immortality, and without either trisecting, or otherwise mutilating it. However, it was not long until the Church authorities deemed it necessary to supplement their simple creed of belief in God, in the divinity of Christ, and in the Animistic character of the soul, by the incorporation of dogmas which were unknown to the Apostolic teaching.

These new doctrines, which were given a permanent place in the Apostolic creed are, in the main, manifestly taken from two sources; viz, Neo-platonism, and the philosophy of Aristotle. In regard to the former, many of its prominent characteristics were similar to those of Christianity, for both were religious in their nature; and both relied upon revelation rather than reason to reveal the truth, besides they were contemporaneous, and many of the early Christians had been Neo-Platonists prior to their becoming Christians. Hence, despite their many differences, Neo-Platonism contributed generously to the Christian theology, and especially is this true with reference to the characterization of the soul. On the other hand, Aristotle's philosophy, after having been elucidated by Thomas Aquinas became the philosophy of the Church. So it came about that the Animistic soul as approved by the Apostolic creed, along with other more, or less radical changes, was trans-
formed and re-cast by a synthesis of Neo-Platonic, and
Aristotelian conceptions.

This change in the conception of the nature of the soul
was not the work of a day as it did not get the official
approval of the Church until the time of Thomas Aquinas.
At first, among the Church Fathers there was much confusion
of thought in regard to the character of the soul; but abso-
olute belief in the Animistic soul was the prevailing
tenet as late as the fifth century. An immaterial entity,
or a substance of pure spirit, at least, to most men still
remained inconceivable, for it was held as consistent with
the Christian doctrine of future rewards and punishments
that the mind should be corporeal substance as only matter
would be susceptible of physical pain. Besides this, they
contended that the word incorporeal is not mentioned in the
Bible, hence the high authority for the inference that the
body is identical with spirit. Such weighty authority as
Origen endorsed the doctrine of double materialism, for he
is quoted as saying: "A spirit is a body of its own
kind in its own form. The soul has the human form the same
as the body, only it is delicate, clear and ethereal; for,
unless, it was corporeal, how could it as the Stoics also
said be affected by the body, be able to suffer, or be
nourished by the body. It is to me a matter of astonish-
ment that the material soul should have ideas of immaterial
things."

The early Christians were familiar with the principles
#2, Bain's Body and Mind, p. #120.
of both Epicureanism and Stoicism. With regard to the form-
or, we shall defer our discussion till a later chapter.
While Stoicism, it is true, did much to prepare the way for
Christianity by its doctrine of omnipresence of God in the
world as Panos; and by its reiterated assertion—which the
world had heretofore never heard of—that duty was the inner
law of man's nature; yet Christianity in other respects
differed fundamentally, and in its essentials, it stood
alone, and on new ground. The Stoic's idea of God was that
of an impersonal power, or intelligence. Contrary to this
the Christian believes in a God of love and forbearance.
Besides, the Stoic held that God looked after the perfection
of the whole, but he admitted in numerous and repeated in-
stances that this loftiness of God was not in keeping, or
consistent with attention to the welfare of the individual.
And in regard to the relations among men, a similar view
was held; for the Stoic asserted that we should not pity,
or sympathize with the unfortunate, but if possible, we
should relieve his sufferings. To suffer ourselves to be
even momentarily affected by pain or grief is contrary to
the harsh principles of Stoicism. The Stoics, also, like
the early Ecclesiastics, held that the soul in its nature
is material, and considered it a detached fragment of the
all pervading soul of the world, into which after death, it
is re-absorbed. But unlike the Ecclesiastics, the Stoics
did not countenance the principle of immortality, at least,
in such a way as to render it attractive. Hence Stoicism
lacked the consolation which attends the Christian belief in a future life, where ample compensation, and equitable re-adjustment awaits the righteous and faithful. Accordingly, it was their view that if the soul survived the body at all, such a survival is temporary only—a mere extension of this life—for at some more, or less remote time, the world itself would be overtaken with disaster, and in the final catastrophe all finite souls would be re-absorbed into the soul of the world; and would lose their separate existence.

Corresponding with this gloomy forecast of the future, the only reward, which the Stoic had to offer for an upright life, is that of endurance, therefore, the soul in his judgment is both material and finite.

Among the Churchmen, Augustine is accredited as the greatest expounder of the Soul-theory; and of all the men heretofore mentioned, who have attempted to distinguish between the body and the soul, Augustine, in our opinion, has made the most adequate and convincing argument. And if we were compelled to base our conclusions, in respect to the nature of the soul, upon the authority of a single individual, our first and last choice would be Augustine. He was a philosopher prior to his becoming a Churchman, and in opposition to the ancient philosophers, he conceived the nature of self as active will instead of intellect, hence he was a staunch defender of the Freedom of the will. But later, on becoming a Churchman, he modified his views concerning the Freedom of the will as he saw that such a theory would be
incompatible with the accredited dogma, which holds that the Church is the sole door to heaven. Because, if men actually possessed Freedom of the will, then, in the exercise of it, they could without the intervention of the Church either accept, or reject the word of God; and in consequence of this the importance of the Church would be secondary. In order to avoid a contingency of such a nature, Augustine, in defiance of his former doctrine in respect to the Freedom of the will, invested the Church with the sole monopoly of the power of dispensation of salvation by restricting the capacity of free will to Adam. The spurious explanation of this singular reversal of judgment is this; although, it is true, that Adam possessed a free will, yet his apostacy from God worked a forfeiture of his power to exercise free action. Hence, through sin, Adam had corrupted human nature, and on account of this, his descendants lost their power of free volition. In this instance, at least, a saint has apparently made expediency a rule of action.

Before proceeding to discuss in detail Augustine's analysis of the soul, it might be worth while to direct attention to the cardinal feature of his philosophy, viz., his emphasis of subjective certainty. #3, "In this respect, Augustine anticipated Descartes, who, later, affirmed that self is the key to the interpretation of reality." Hence his turning away from objective knowledge, which we have just noted by reference to his conception of self, renders his #3, Hunter's History of Philosophy, P. #125.
analysis of the soul relevant to our point of view.

Augustine opens his argument in defense of the soul, and its immateriality without any circumlocution, and in a most direct way by dwelling upon the contrast between the properties of matter and those of the soul, or mind. \#4. "It is obvious," he says, "that matter has such attributes as length, breadth, depth, and hardness, which are meaningless and unintelligible when applied to the soul, or mind as it is inconceivable in what manner any of these epithets could be applied to the soul, since they are simply corporeal properties. To use these epithets as attributes of the soul would be in effect to confuse the material and the immaterial. While these epithets may suffice to distinguish between the nature of the soul and that of matter, yet extension is recognized as the most distinctive attribute of matter."

This definition of matter is the foundation upon which Augustine rears his structure of proofs, establishing the identity of the soul, and its immateriality. These proofs are formidable and irresistible as they clearly show that the soul does not possess the characteristic quality of matter.

Following up his line of argument, let us consider his second distinction between body and soul, which is quoted in these words: \#5, "The soul is superior to the body, from it

are derived life movement, and sensation; none of which are perceived by the body after the soul has fled. Thus the soul working through the bodily organs must be in its own nature superior to the body it animates. It is invisible, incorporeal, and spiritual."

His third argument is drawn from the consciousness of the mental states, and in substance, it asserts that the soul is known by us directly; for our thoughts, desires, knowledge, and ignorance are better known than the objects around us as these objects are perceived only through the medium of the bodily organs. If, then, the soul is corporeal, it seems probable that it should be known to us as such. But in this direct knowledge of it, we have no intimation of corporeal qualities like size, shape, or color, hence it is a fair inference that such qualities do not belong to the soul. Moreover, it is an indisputable fact that feeling and thinking are properties of the soul, but to argue that the soul is a material substance is a mere assumption. The astounding and numberless varieties of conjectures as regards the materiality of the soul are tantamount to an admission that we have no knowledge of such a material substance.

Augustine concludes this phase of his argument by saying:

"If we separate what we really know from what we only think, there remains such qualities as life, thought, and feeling, which none have never doubted."

In his fourth argument, Augustine finds further evi-

idence of the soul by his analysis of the faculty of memory. He explains that the mind has the power of gathering in, and of retaining the images of an innumerable variety of objects. If, then, these images, which resemble their corresponding bodies, are in fact incorporeal, and it would be paradoxical to conceive of them otherwise, for they have no appearance of possessing corporeal properties; then, if the things contained in the mind are immaterial, is it not likewise true that the mind itself is immaterial?

His fifth argument is an adaptation Plotinus had previously held that the whole soul is present at the same time in every part of the body. This is approved by Augustine, who holds likewise that the soul is at the same time wholly present not only in the entire mass of the body, but also in every particular of it. #7, "When there is any pain in the foot, the eye looks, the tongue speaks, and the hand moves; this would not occur, unless what of the soul in these parts felt also in the foot, for if not present in the foot, how could it feel what there happened. But the presence of the whole soul in every part of the body is not similar to the diffusion of bodies through space; since in this particular, they are large or small according to the space occupied; and again, it is not like the case of a quality such as whiteness, being wholly present in every part of some concrete object; for the matter that is white in one part has no connection with the whiteness in any other part. Therefore, the soul possesses a peculiar nature of its own.

whose qualities are exhibited by no material substance."

The sixth argument is a discussion of the rational soul in which special considerations are deduced to prove its immateriality. "th objects of reason are incorporeal as these objects are images of corporeal things, which reason compares and judges. Although resembling matter, they are really unextended, and, therefore, are immaterial."

In truth and wisdom, he finds an illustration of this. These are objects of reason, but they contain no trace of material qualities. Besides, in the mind itself, no material elements are discernable as it cannot be divided into parts, and extended through space in the manner material objects may be transformed. In reply to the objection that if the soul has no length, breadth, or thickness, it must be nothing, he answers that there are many existing things which have none of these qualities; e.g. justice has no extension, yet it is of a higher nature than any corporeal object.

His seventh point deals with the problem of interaction between mind and body. According to his view, the soul does not act directly on the denser part of the body, but upon a corporeal substance, which is nearer in its nature to the incorporeal. This medium is a composition of light and air. Hence interaction is accomplished by the soul communicating its intelligence to this medium of more subtle matter, which in turn conveys it to the nervous organism.

#8, Ibid, Chapter 17, pp. #115 and #116.
In the eight and final division of his arguments, he discusses the soul from a variety of stand-points. Among others, we note the following: No created being can be immortal in the same sense as God, for life in either flesh or spirit depends continuously upon the Divine will. But no change occurring, either in the soul itself, or in the body tends towards its destruction as the soul cannot be destroyed by any other being whether corporeal or spiritual, but can be destroyed only by the will of God. In support of this, he says; #9, "The soul is the life and the source of life to everything that lives; the soul, or mind, therefore, cannot die, for if it can be without life, it is not soul, or mind, but something made alive by mind."

These profound arguments are concluded by Augustine's emphatic assertion that nature itself demands immortality. "In the human breast," he says, "there is an instinctive longing for immortality as all men desire to be happy; yet happiness cannot be genuine, unless the participant has reason to expect its continuance, hence no man can be happy unless he has what he desires. Life, therefore, must be eternal, or happiness cannot be attained."

In addition to the contribution of Augustine, it is worth while, before passing, to consider Memertus's conception of the soul as he is a contemporary of Augustine, and their theories in respect to the soul are decidedly complementary. In the outset Memertus, directs attention

to the statement that man was made in the image of God. To which he interposes the objection that the divine nature is incorporeal; and since there can be no resemblance to God in matter, we must believe that the image is to be found in the immaterial soul. The soul, he asserts, is not limited in place. It is wholly present in every part of the body as well as in the whole; otherwise, a portion of the soul would be lost, when any part of the body is cut off. Yet no material object can be present in more than one place at a time. This, however, is not the case of the soul; for while animating the body, it as a whole sees through the eyes, and hears through the ears. Its motion is not in space, but only in time, which is simply a change of thoughts, or feelings. #10, "The soul has no quantity, for place and quantity are inseparable. While no being except God is entirely beyond the sphere of the categories, it is only matter that is subject to them all. Thus the soul has quality, but not quantity. In one sense, indeed, it has measure, number, and weight. Measure equals the degree of viscer; number equals the mental perception of external number; weight equals the will, or dynamic power of the soul. The soul is not contained in the body, but in reality the soul contains the body. But no material substance can at once contain the body, and be within it as its animating principle." In respect to the apparent contradiction that the soul is in a place, and yet not bound by the place, Memortus's reply is that the universe itself presents a similar difficulty, for #10, Bains Mind and Body P.171, quoted from Claudian Memortus' Treatise, De Statu Animae.
it cannot be contained in any place, else that place would require another place, and so on to infinity.

From the fifth century till the thirteenth century is a barren period, in which there was produced no important literature bearing upon the theory of the soul. In the thirteenth century, however, speculative thought was again revived by the Schoolmen, who have made a deep impression on all subsequent literature relative to the nature of the soul.

In the Dark Ages, philosophy slumbered. The Church claiming to be in possession of the whole truth, regarded with the same displeasure both speculative thought and Pagan culture. Yet despite the Church's bigotry, and its stringent decrees there was discernable in the eleventh century intellectual tendencies that were later destined to restore the broken unity of history, and to give again free rein to those who had a speculative bent of mind. The Schoolmen were successful in not incurring the hostility of the Church as they pretended that it was their aim to assist rather than detract from the teachings of the Church. If reason and revelation could be harmonized, and science and faith reconciled, they argued, it would give the Church even greater prestige. In this way Scholasticism had its rise; and with the consent and approval of the Church, it thus began to pursue its course in that narrow and seemingly barren field, whose limits were the dogmas of the Church. Briefly, the distinction between modern philosophy and Scholasticism
is this: "Modern philosophy is the philosophy of change, of phenomena, and of perpetual flux, while Scholasticism is the philosophy of permanent and substantial being— not that the Schoolmen ignored change, but by preference, they rested upon complete existence, and achieved results. It is needless to say how little substance enters into modern thought as it has become a bloodless category."

With reference to the nature of the soul, many of the early Scholastics, of whom Erigena was the most conspicuous, were ready to accept the Platonic conception and to hold that ideas and abstractions were the true realities. This revival of the old question concerning the reality of universals, and the status of the particular, or individual was provoked by Porphyry, the Neo-Platonist, who wrote: "Now, concerning genera and species, whether they be substance, or a mere concept of the mind; and if substance, whether they be corporeal, or incorporeal; and whether they exist apart from sensible things, or in and about sensible things—all of this, I will decline to say." Those who favored universals, were called Realists, while those who contended that the individual was the true reality were called Nominalists. To admit the theory of the realists that the individual existed only in the class would render the notion of individual immortality a mere travesty, for the logical tendency of Realism is in the direction of 

#11, Joseph Rickaby's Scholasticism, P. 4.
#12, Joseph Rickaby's Scholasticism, P. 10/
Pantheism. If we concede that the individual has no other existence than the of the class, and not one of its own, then, the inevitable conclusion must be that the highest concept, or God is the sole reality. This is the belief of Frigona, who says: #13, "God is everything that truly is, and is the end of things visible and invisible, when as visible things, they pass into the intellectual, and the intellectual into God by a marvellous and unspeakable union."

Such Pantheistic doctrine can scarcely be interpreted, except as merely a re-statement of the old Buddhistic theory that at death the soul loses its identity by being re-absorbed into the universal soul.

At this juncture of affairs there arose a New School of thought, which succeeded in mediating between the extreme views of the Realist and Nominalists the latter holding that the concept was only a name. The founder of this new school, or the doctrine of conceptualism, was Abelard; his teaching respecting the nature of abstract ideas has been accepted by modern authorities without any radical amendments, or diminution, he says: #14, "That the class term has no objective existence as such; it exist only as a thought, or a concept in the mind. But neither is it a mere breath, or a word out of all relation to things, themselves. The concept exists in particular things as a similarity, or an identity of qualities, through whose abstraction by a mental act the concept is formed; and as an expression of #13, Hermann's History of Philosophy, Vol. I. P. #220.

#14, Hunter's History of Philosophy, P. #106.
this similarity, it is objectively valid. There is even a sense in which, we might say that the concept exists independently of things—as an idea that is in the mind of God. A Divine idea, then a likeness existing among qualities in objects, and an abstraction of these qualities by the human mind to form a class term with a universal meaning—these for conceptualism are the factors, which enter into the problem of universals." (§14.)

Aside from these preliminary observations, it should be noted that Scholastic philosophy is based upon a distinction of matter and form. It also distinguishes between substance and accident. Its cardinal principle is expressed tersely by representing that "Substance alone fully is," while accident has but a diminished being as it only inheres in substance. They also distinguish in substance two constituents: the determinable, which they call matter, and the determinate, which they call form. Of all created substances, the Scholastics gave the greatest preference to the substance of men and angels. The early scholastics inspired by the Holy Scriptures, and Neo-Platonism arrived at some very singular conclusions in respect to angels possessing pure form, and even some of the later adherents, too, seems to have accredited the angels with pure form, but others attributed to them the character of matter, which differed, however, from the matter of the human body. §15, "But the most perfect type of form, in the Scholastic sense, was the human soul; §14, Hunter's History of Philosophy, P. §106.

the soul informs the body, which is its matter; the soul is not merely the prime mover of the body as is the deist of the boat which was the Platonic conception of human nature, for Scholastics hold with Aristotle that the soul is the prime constituent of the body. The soul and the body make one entity; one nature; and one principle of action. Body and soul are two actually existing substances, but out of the two of them is made one substance actually existing, for a man’s body is not the same in actuality when the soul is present as when it is absent. It is the soul that gives the actual being."

The Scholastics also approved the Aristotelian theory of Abiogenesis, which is the development of maggots, reptiles, and fishes out of mud, and decaying matter. They likewise believed in the Ontogenetic evolution of the human embryo from a mere vegetative life to the life of an animal, and thence to the life of a rational being. According to this notion, the higher a form is in the scale of living, the more intermediate forms, and likewise, intermediate generations must have in turn existed, and have passed away, before the advent of the final perfect form. In the course of development of men and animals, we encounter the most perfect forms; yet it is obvious that in the progress of development there have occurred many intermediate forms and generations, and their consequent destruction, as the generation of one is tantamount to the destruction of another.

#16, "The vegetative soul, therefore, is the first in the
#16, Joseph Rickaby’s Scholasticism. P. #48."
embryo, and while living the life of a plant it is destroyed, then, there succeeds a more perfect soul, and it is at once natural and sentient, and for that time the embryo lives the life of an animal; upon the destruction of this there ensues the rational soul infused from without. Hence Scholastics favored what is called Ontogenetic evolution that is evolution of the individual perfect animal from a lower form."

The innovations upon the Aristotelian conceptions of the soul by Albertus Magnus are of such a character as to render them relevant and material to our point of view, hence in anticipation of our closing discussion, we now offer a brief statement of his analysis of the soul for the purpose of contrasting it with that of Aristotle, which has heretofore been cited. §17, "Albertus Magnus holds that the active intellect is a part of the soul; i.e. the principle that confers form and individuality. In this principle are also contained forces called by Aristotle nutritive and sentient, and that these two latter powers; i.e. the nutritive and sentient are separable at death from the body, and are immaterial."

Among the Scholastics, Thomas Aquinas is recognized as a high authority concerning the nature of the soul, yet his ultimate conclusions are substantially the same as those of his great teacher, Albertus Magnus, but it is expedient now to defer our examination of Aquinas's arguments until, we §17, Bain's Body and Mind, P. §257.
call attention to a momentous matter, which had created a division among the Scholastics.

The controversy arose in regard to the question as to the primacy of the intellect, or will. Aquinas maintained the position that the intellect is original and supreme, and that God's will is determined by knowledge. Among the opponents of Aquinas, were Duns Scotus and William of Occam, who held on the contrary: #18, "That if God's will is limited by an eternal truth, then, there is something above God which determines him, therefore God must be conceived of as an absolutely free will." Admitting the premises, the conclusion is apparently inevitable that truth and falsehood, right and wrong are nothing in themselves, but are established by God's arbitrary act. This view, in effect, places religion in an entirely new light, for it can no longer be identified with a reasoned statement of the truth, but it must be viewed as a condition, or an attitude of the will. Perhaps, a better statement is to say: #19, "That religion becomes a moral life which obeys the law of duty imposed upon it by authority, and if it is admitted that truth rests upon the inscrutable will of God, then, it must in the nature of things be unknowable by human reason."

The relevancy of this digression will appear in a later discussion.

Thomas Aquinas is the official spokesman of the Church in respect to the relation between philosophy and revelation. #18, Rogers's Student History of Philosophy, P. #219. #19, Rogers's Student History of Philosophy, P. #219.
and between science and faith. In formulating his system, he made use of the Aristotelian concepts of matter and form, in which the lower in the scale of being is subordinated to the higher; body to soul; philosophy to revelation; and political power to ecclesiastical. In support of his declaration that body is inferior to the soul, he offer a series of arguments, which may be considered in the following order: (1), The immateriality of the soul; (2), The independency of the soul; (3), The constituency of the soul; (4), The immortality of the soul; (5), The universal longing for immortality; (6), That the nutritive, sentient and rational faculties are exercised by the same soul; (7), The ubiquity of the soul in the whole and every part of the body.

In regard to the first point that the soul is not material, he says: "20. It is the primary source of life in all living things. Now while the body may be the secondary source of living operations as the eye; e.g. is the source of vision, yet body as such is not living, or a source of life. It must have this power as body of a particular kind, and the source from which anything receives its character is its actuality. The soul, therefore, which is the primary source of life, is not body, but in the actuality of body as heat, which is the source whence bodies are made hot, is not body, but a sort of actuality of body."

#20, Alexander Bain's Body and Mind, P. 176, Quoted from Summa Theologica, 1. 75. 1.
In his second point, he maintains that the soul is an independent substance. For by intellect man cognizes the nature of all kinds of bodies; this could not be if intellect were matter as the thing knowing must have nothing in it of the nature of the object known. For should the soul cognize by means of body, the determinate nature of the medium would hinder it from knowing all kinds of bodies; §21, "just as a diseased eye, he says, would distort vision, or the color of a vessel would affect the color of the liquid contained in it, therefore the rational soul works by itself without connection with the body, and as only a substance can thus work by itself, the soul of man is an independent substance." He, however, here draws a distinction between man and animals by denying the sentient soul the function of working independently of the body.

In his third argument, he discusses the constituency of the soul by affirming that the soul consists of pure form, and is entirely without matter. If this were not true, he says, the intellect could not cognize the essence of things as matter is the principle of individuality, hence it would prevent the intellect from cognizing the universal. The truth of this is apparent in animal psychology as the sentient soul of the animal, operating through bodily organs, is restricted in perception to knowledge of individual things.

The fourth phase of his discussion is an exposition of the immortal nature of the soul. While denying the Platonic §21, Alexander Bain's Body and Mind, P. 177. Quoted from Summa Theologiae, 1.75.6.
doctrine of Pre-existence, Aquinas holds that the immortalit\-ality is an implication, which is derived from its immateri\-ality. He says: 

"That it cannot perish by anything external to itself; for it is fitting that the beginning and end of existence should take place in similar ways, hence that has independent being can perish only by itself, nor can it perish in this way as form is actuality. Matter perishes through being separated from its form, but it is impossible that form could be separated from itself. Wherefore, it is impossible that existing form should cease to have being."

The fifth proof is cumulative in character as it refers to the universal longing of all men for a future life, hence this natural desire, he urges, cannot exist in vain.

His sixth reasoning is in harmony with that of Albertus Magnus whose deduction, Aquinas elaborates in defining the relationship of the nutritive, sentient and rational soul. Accordingly, he, too, holds that the nutritive, sentient and rational faculties are exercised by one and the same soul. In support of this, he points out that otherwise, a man would not be really one, for the unity of any object comes from the same form that gave it being. Besides, their identity appears from the fact that any operation of the soul, when intensely carried on, hinders any other. Thus the higher form really includes the lower ones— the nutritive

#22, Alexander Bain's Body and Mind, P. #178. Quoted from Summa Theologiae. 1.75. 6.
and sentient souls.

In his seventh and final comment concerning the soul, Aquinas adopts Plotinus's principle of Ubiquity as regards the seat of the soul, for he affirms also that the whole soul is present in the whole and every part of the body.

Aside from this, he holds that the faculties of the soul do not all survive when the soul is separated from the body; but some powers, such as will and intellect which are connected with the soul alone, survive in the incorporeal state; others are joined to the body as nutritive and sentient souls; and disappear as to actual operation when the bodily organs perish.

While it is true that dualism, in some degree, or other, is recognized in the various systems of philosophy as philosophers must draw some distinction between mind and the world, which it cognizes; also if they be Theists, between God and the world; yet, it is said that Aquinas's position is the utmost limit of abstraction in a dualistic sense. Hence, some of the Scholastics did not approve of his extreme views. Among others, Duns Scotus held that God alone was absolutely pure form, and that all created beings, including the angels and the human soul, are compound of matter and form.

In this and the two preceding chapters, our aim has been to follow from its origin the conception of the soul and to note its gradual development. In Ancient Animism, we discovered its origin; in Greek philosophy, we met the
first distinction between the Ideal and the Sensible; in
Scholasticism, we found the Christian conception stated in
terms of the Greek concept of matter and form, and now, it
only remains in a succeeding chapter to consider a brief
summary of the materialistic point of view, before we pro-
ceed to the determination of our theory as stated in the
title.
CHAPTER IV

The Derivative Soul of Materialism.

In our examination of the soul-theory, we have, thus far, limited our research to arguments that were favorable to it, but now a fair presentation of the whole question demands an evenment of the opposing arguments. Aside from fairness, however, we have another reason for stating the whole case, for out of the clash and jar of these diverse and hostile opinions, we must find a hypothesis for our own theory.

The most serious opposition that has ever threatened Animism is charged against materialism. In a previous chapter, it was stated that Anaxagoras developed the theory of qualitative Atomism. This theory of Anaxagoras was rejected by Leucippus as he denied the difference in qualities among the elements, and in order to set up a system of quantitative Atomism, he adopted the Eleatic conception of Being, which is devoid of all qualitative characteristics. Unlike Parmenides, however, he retained the reality of motion. In doing so, he had to have an explanation of the apparent changes that are visible in the phenomenal world. His theory, therefore, accounted for the phenomena of change as transformations of the atoms in spatial position only. This, however, was contrary to the Eleatic theory which did not recognize the existence of non-being, or empty spaces. The solid world of Parmenides is accordingly reduced to a gigantic collection of infinitesimal atoms, which together
with their changing relations, alone, are true reality; all else is appearance. In this, we have the first statement of philosophical materialism. Reality is here reduced to the primary qualities of body. Teleology, or final causes are rejected in favor of mechanical explanation. As all the data necessary for the understanding of the world are imminent in the notion of matter itself, it is not necessary to appeal to purpose or intelligence, for the immutable laws of mechanical interaction suffice for all explanation. The soul is also explained as being composed of five atoms, which are distinguished on account of their fine qualities and incessant activity. The soul atoms are distributed quite abundantly throughout the world. Yet in order for them to produce sensation, they must come together in large quantities; a measure of a large quantity in the human body. Consciousness depends upon the body; at its dissolution the atoms scatter, and the soul is gone forever.

Before examining the refinements of Democritus, it might be well to have before us a modern definition of materialism. §1, "Materialism is complete when it is conceived as purely material that is when its constituent particles are not a sort of thinking matter, but physical bodies which are moved in obedience to merely physical principles, and in themselves without sensation produce sensation and thought by the particular form of their combinations. Hence, we must resolve matter into atoms and empty places for them to move in." In the light of this definition, Lange's History of Materialism, Vol. 1, p. 74.
tion, it is probable that we may now proceed more adventa-
geously with the principles on which Democritus constructed his system. As the modern atomic theory has been developed from these principles of Democritus, we deem it advisable to include herein their re-statement. §2, "Out of nothing arises nothing. Nothing that is can be destroyed. All change is only combination and separation of atoms." Lange says: "This proposition contains in principle the two great doctrines of modern physics; i.e., the theory of the indistinguishability of matter, and the conservation of energy."

§3, B, "Nothing happens by chance, but everything through a cause and of necessity." This amounts to a negation of all teleology. According to Lange, the Cause is nothing but the mathematico-mechanical law followed by the atoms in their motion through an unconditional necessity.

He further calls attention to the common error of confusing chance and necessity. They are opposites as chance is fluctuating, while necessity is absolute. §4, C, "Nothing exists but atoms and empty spaces; all else is only opinion." "Here, Lange says, we have both the strong and weak side of Atomism. It is strong as it provides an explanation of the laws of sound, of light, of heat, of the chemical and physical changes in things, but weak as it has no

§3, Lange's History of Materialism, Vol. 1, p. 520.

§4, " " " " " Vol. 1, p. 522.
explanation to offer for interaction, how a physical movement is translated into a nervous movement and thence into consciousness."

The Eleatic School had explained motion and change as an illusion. Democritus applies this doctrine of illusion to secondary qualities only. He says, "only in opinion, consists sweetness, bitterness, warmth, cold and color. In truth, there is nothing but the atoms and empty space."

§5,9, "The atoms are infinite in number and of an endless variety of form. In the eternal fall through infinite space, the greater which fall more rapidly strike against the lesser, and a lateral movement and vortices that thus arise are the commencement of the formation of worlds. Innumerable worlds are thus formed and perish successively and simultaneously." In respect to the fall of the atoms, that is the large atoms overtaking and colliding with the smaller ones in such a way as to produce a rotary movement. Democritus' theory is rejected by both the ancient and modern physicists. Aristotle held that if it were possible for void places to exist that all bodies must necessarily fall with equal speed as the difference in rapidity of descent is determined by the various densities of the medium, and as a void place is not a medium, there can, therefore, be no difference in the rapidity of following bodies. §6, Epicurus, in accounting for the beginning of the world pro-

§6, Roger's Student History of Philosophy, p. §134.
cases, introduces a feature that is inconsistent with the conception of Democritus. For as Aristotle has shown that all things voluntarily fall downward in a parallel direction, and fall equally fast so long as there is nothing to oppose them, they never would come in contact, were it not for an original deviation from a straight line, which Epicurus says must have been voluntary and uncaused. The result of this is that certain atoms clash, and thus set up the world processes. This notion of freedom, which Epicurus uses to explain the impact of atoms is clearly at variance with Democritus’s law of necessity.

§ 7. "The variety of all things is a consequence of the variety of atoms in number, size, figure, and arrangement; there are no qualitative differences of the atoms. They have no internal conditions; and act on each other only by pressure, or collision." This is merely a repetition of the third proposition in respect to Democritus’s conception of the sense qualities such as color, sound, taste, and temperature as mere deceptive appearances. Our subjective impressions are determined according to the differences in the arrangement of the atoms. Aristotle’s criticism of this proposition is the suggestion that Democritus has reduced all kinds of sensations into one sensation; i.e. touch. Lange says; The sensation is not an individual atom, and still less is it an aggregate of them; for how could it be brought into focus through void places? It is produced and

determined by means of a form in which the atoms act in mutual co-operation. This is a near approach of materialism to formalism.

"The soul consist of fine, smooth, round atoms, like those of fire. These atoms are most mobile, and by their motion, which permeates the whole body, the phenomena of life are produced." "The doctrine of mind, it is said with reverence to this proposition, has not in the case of Democritus proceeded from the general necessity of a deeper principle for the explanation of nature. Democritus regards mind not as a world building force, but only as one form of matter among others. Even Empedocles had regarded rationality as an internal property of the elements; Democritus on the contrary only as a phenomenon taking its origin from the mathematical constitution of certain atoms in their relation to others." Aristotle makes sport of Democritus soul-theory as to the way the soul and body interact by giving a concrete example; he reports "that Daedalos is said to have made a moving statue of Aphrodite, this the actor Philippus explains had probably been done by pouring quick silver into the interior of the wooden figure. In the same way, Aristotle thinks Democritus would have man moved by mobile atoms within him." Democritus's soul atoms move like all other atoms; i.e. according to mechanical

Zellers' Outlines of History of Greek Philosophy, p. #135.
principles and produce the phenomena of thinking beings only in a special combination mechanically brought about. "Materialists claim that Atomism is but a theory as to the thing in itself, which lies at the bottom of all phenomena; and that all the adaptations to be found in the world are merely special cases of the infinite possibilities of mechanical events."

In contrasting Aristotle's system with that of Democritus, we find that the former gave precedence to form over matter; and the whole over its parts, while the latter holds that the whole is explained by its parts, and form by its matter. It is admitted, however, that this is an infinite process, for it never reaches its goal as there always exists a great contradiction between the complete whole, and the explanation from its parts.

We shall now conclude our inquiry concerning ancient materialism by quoting a paragraph from F.A. Lange's History of materialism in respect to the completeness of the ancient system. "Of all the great principles underlying materialism of the present time, one only is wanting in the system of Democritus, which is the principle of the development of the purposeful from the unpurposeful. We cannot, in fact, dispense with such a principle, for as soon as we seriously undertake to carry out one kind of causality that of mechanical impact of the atoms, it is the finest, most mobile, and smoothest atoms, which produce the

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Lange's History of Materialism, Vol.1, p.32.
phenomena of the organic world; but we must show why, with the help of these atoms, instead of arbitrary, aimless objects, there are produced the exquisitely articulated bodies of plants and animals with all their organs for the maintenance of the individual and the species. Only, when we have demonstrated the possibility of this, then, in the full sense of the word can the rational movement be understood as a special form of the universal movement. We find in Democritus no trace of a teleology, which may be defined as the hereditary fame of all science; yet we do fail to find where he made any attempt to explain the adaptations from the blind sway of natural necessity. Whether this means that there was a gap in his system, or only that there has been a gap in tradition, we do not know."

In view of this startling admission, does it not appear logical, or at least thoroughly consistent with motherwit that the Animist should proceed no further, but interpose a general demur, assigning as a reason therefor that materialism has failed to state sufficient facts to support a working hypothesis. For it is admitted that either tradition, or Democritus has left the gap wide open; in so far as the rational movement has not been identified with the universal movement, nor has the correlation between the blind sway of the law of necessity, and the adaptations of plants and animals been revealed.

Democritus completed his system by formulating an Epistemological theory in harmony with it. He distinguish-
ed between sense-perceptions, which give the unreal appearance of things as having sense qualities, and thought which reveals their atomic structure. Aside from this, his materialism compels him to explain knowledge in the terms of contact, hence all knowledge is reduced to a form of touch. He effects this through his theory of images. According to this external objects shed minute copies, or images of themselves. These enter the sense organs, and, by setting in motion the soul atoms give rise to perception. But he is careful to affirm that there is no difference in kind between sensation and thought. Thought is caused by the finer images, which are copies of the atomic structure of things, and are so mild in action that if the soul is agitated, they are without effect. Sensations, on the other hand, are due to large and coarse images; these throw the soul into violent commotion, which results in confused perceptions, and gives rise to unreal appearances of things. Materialism, therefore, holds that the origin of our knowledge is from the senses; and the power of constructing the universe is inherent in the atoms, molecules, and their modifications, and that the things in themselves are the atoms in motion.

"The mechanical theory of the world, since the time of Newton has dominated our whole apprehension of nature. We shall no longer as Plato did ascribe to the universal as opposed to the individual a truer reality, and an existence independent of our thoughts, but within our subjectivity,

Lange's History of Materialism, Vol.1, p. 335."
it will be to us no more than a bracket that holds the facts together. Idealism in its very nature is metaphysical spec-
ulation. The idea is distinguished from fancy only by value,
not by origin. Childish sciences confuse the idea and fact.
Accordingly the atomic doctrine to-day is still what it was
in the time of Democritus."

Materialism affirms that sensation is the property of
matter, and refers consciousness back to sensation; it
asserts that all adaptations to be found in the universe are
merely special cases of the infinite possibility of mechan-
ical interaction; that matter is eternal; that matter is
the only really existing substance; that sensation is
caused by the motion of the atoms.

But how can the motion of a body in itself not senti-
ent be sensation? How does sensation come about? To these
questions materialism has no answer. The rational movement
and the blind sway of the natural laws stand far apart.
Protagoras was the first to start from the subjective side.
He considered the particular and the individual the essen-
tial. His doctrine was: "Man is the measure of all things,
and contradictions are equally true." But the human mind
demanded something persistent in the flood of phenomena.
So Plato fixed permanency in the universal; the sophists
in the particular; and the materialists in the immutable
and necessary laws. Plato was the first to distinguish the
universal essence of things from particulars. To the former,
he attributed true being, but to the latter only a state of
becoming. The materialists hold that the ultimate basis of all knowledge is sensible perception. The Empiricist affirms this, but the idealist says no, and insists that the true and the false are shown only in the synthesis of subject and predicate in judgment.

Lange criticizes the Aristotelian conception of matter as follows: "Aristotle mentions four universal principles of all existence: Form the essence; matter the efficient cause; type the formal cause; and end or purpose the final cause. The potential and the actual were matter and form, the accident and the substance. His mistake lies in this: that he transferred what is actually the idea of a thinking subject to a foreign subject; and further, quoting from Hobbes, Lange says science has no other subject than the sensible particulars, and upon this Will founded his logic."

In ancient times, the expounders of the theory of Democritus were Epicurus and Lucretius. The former based his system of morals on the cosmology of Democritus, while the latter became its chief interpreter.

In regard to the Epicurean system, while admitting the freedom of the will, it denied the immortality of the soul, the doctrine of teleology, and made the highest good, or end of life pleasure. This notion of pleasure being the highest good, had formerly been held by Aristippus, the Cyrenaic. Hence, out of the atoms of Democritus, and the
Cyrenaic conception that pleasure is the highest good, Epicurus constructed his elaborate system of morals. It was this system of Epicurus, alone, that for seventeen centuries kept the spark of life from ebbing in materialistic thought. Neo-Platonism, Scholasticism, Rationalism waxed and waned before many men were disposed to revive the philosophy of Democritus. Yet there were a few men prior to the seventeenth century, who favored the cosmology of Democritus. Bruno, the pantheist, conceived matter to be the true substance, the mechanical character of the universe, the God as the sum of all things. Bacon acknowledges Democritus to be a greater philosopher than Aristotle, and introduces the inductive method. Hobbes, whose teachings as to knowledge were revised and elaborated by John Locke, the founder of the school of Empiricism, also took a firm stand for the mechanistic principle, he identified the idea of body with that of substance, and affirmed that everything is body, which is independent of thought and occupies space. Accidents are not really objective like body, but are simply a way in which body is conceived, and the image by which we conceive a thing is not the thing itself. Besides these, we should mentioned two physical philosophers, Galileo and Copernicus. Galileo distinguished for his knowledge of mathematics and astronomy, is among the first in this awakening epoch to re-direct attention to the mechanical conception of the world, and to affirm that its true explanation was mathematical. Copernicus shifted the center
of the universe from the earth, and made it only a point in a vast system. This produced a profound sensation on account of its variance with Christian theology.

As far as the materialistic system of thought is concerned, aside from these few but notable exceptions, we may safely assert that it was still waning at the dawn of the seventeenth century, which marks the inception of a strong materialistic reaction. This continued throughout the seventeenth century, and culminated in the last half of the eighteenth century.

§14. "The revival of materialism in the seventeenth century is attributed to Cassendi. He taught Atomism in opposition to Aristotle. He also favored the doctrine of the eternity of the world as set forth by Lucretius. Besides, his ethical belief was based on the Epicurean theory of morals. He, nevertheless, recognized the weak side of Atomism; i.e., the impossibility of explaining sensible qualities and sensations out of atoms and space. He did much to strengthen this part of the system, not only by restating the arguments of Lucretius in a more convincing manner, but by advancing many new arguments. Among the many arguments of the opponents of Copernicus was, that if the earth revolved, it would be impossible for a cannon ball fired straight up into the air to fall back upon the cannon. Cassendi had an experiment made: On a ship travelling at a great speed a stone was thrown straight up into the air. It fell back following the motion of the ship upon the same §14, Lange's History of Materialism, Vol.1. p. §253."
part of the deck from which it had been thrown. For the same purpose a stone was dropped from the top of the mast and it fell exactly at its foot. These experiments of men, who were just beginning to understand the laws of motion, had great significance."

§15, Boyle rejects most distinctly the doctrine of Empedocles; i.e. the rise of the purposeful from the unpurposeful. His cosmology, exactly like that of Newton, bases teleology upon mechanism itself. For both ascribe to God the first organisation of motion among the atoms; and even latter attribute to Him certain modifying interferences with the course of nature, but they sought the ordinary rules of everything that happens in nature in the mechanical laws of the motion of the atoms. Boyle compares the universe to an ingenious clock. To him it is a mighty mechanism working according to fixed laws, but for this very reason, it must be an intelligent organisation. Descartes assisted in the revival of materialistic thought by holding that animals were mere machines. For the analogy between man and the animals was so obvious that it was not long until his machine doctrine was widened in its scope so as to include man. In connection with Descartes, it should be mentioned that he and Newton have exercised the greatest influence in the development of the modern conception of matter. They differ from Democritus and Epicurus in this respect; For, they separate motion from matter, and make

it arise through the will of God, who first created matter, and, then, by a subsequent act brings motion into it.

John Toland advanced the idea that thought phenomena, which are the inherent accompaniments of the material movements in the nervous system were much as a light that results from a galvanic current, or the effervescent glow of phosphorus.

The revival of materialism, probably, received its greatest impetus from Newton's discovery of the law of gravitation. No one thought any longer of seeing in the universal attraction of material particles anything but a mechanical principle. Hence from the beginning of the eighteenth century, the Newtonian cosmology has occupied the place in materialistic thought that was formerly held by that of Democritus. It is the theory of the necessary origin of all things in virtue of a property that is inherent in all matter.

Locke's Essay Concerning Human Understanding became the basis of empirical psychology, and also a new epistemological theory, which was so bold as to attempt to make the principle of Association the generator of ideas. All ideas according to Locke are derived from sensation. The mind at birth is a tabula rasa. In addition to this, he goes still further in suggesting that after all a thinking being may also be material, for since all things are possible with God, he could have made our mind, or soul a property of matter. The materialists argue, why assume two entities when
one is enough. Besides, according to Voltaire, we are sure in respect to our bodies, but as to the soul-entity, we have no knowledge.

As we have previously stated, the revival of materialism reached its culmination in the last-half of the eighteenth century when the French materialists frankly identified knowledge and sensation, soul and matter. In order to get a better understanding of these extreme and radical innovations in the system of thought, it seems profitable, now, to give an outline of La Mettrie's Man a Machine, and Holbach's System of Nature.

On account of his having made pleasure the highest good in his system of morals, La Mettrie has been styled the Aristippus of Materialism but the relative position of the two men in respect to their systems is quite at variance, for La Mettrie comes near the end of the Materialistic revival, while Aristippus heads a system of his own. If we place the Revivalists of materialism in a time order, we shall have the following alignment: Bruno, Hobbes, Locke, Voltaire, Condillac, the Encyclopédists, Helvetius, La Mettrie, and Holbach.

§16, "La Mettrie in his attempt to make men a machine advances only empirical arguments as he opens his case with an elaborate discussion of the comparative anatomy of man and the lower animals in which he lays bare their vital organs, and arrives at the following deductions: (1), That §16, La Mettrie's Man a Machine, p. #90.
the fiercer the animals are the less brain they have. (2)
That the brain increases in size in proportion to the
gentleness of the animal. (3) That nature seems here etern-
nally to impose a singular condition; i.e. the more one
gains in intelligence, the more one loses in instinct. In
this way, he seeks to prove that the diverse states of the
animal soul as well as the human soul are always correlative
with those of the body. "This view is in diamete-
rical opposition to the teachings of Descartes, who says:
The soul is of a nature wholly independent of the body. Yet
there is an intimate relation between the two. The reason-
able soul could by no means be deduced from the power of mat-
ter. It must be expressly created; and it is not suffici-
ent that it be lodged in the human body, exactly like a
pilot of a ship, but it is necessary that it be joined and
united more closely to the body in order to have sensations
and appetites similar to ours."

La Mettric's next argument for materialism is to show
how the soul of man, as well as animals is affected by
disease, sleep, drugs, food, age, sex, temperature, and
climate. Here, he finds proof for the same proposition;
i.e. the diverse states of the human soul, as well as those
of the animal soul, are always correlative with those of
the body, therefore, man and the animal are the same in kind,
and only differ in degree. Such is his empirical deduction.
Condillac, too, finds the basis of knowledge in sense-
tion as he says: "Man is nothing more than what he has become by the use of his senses."

Luzae sums up the preceding facts by saying: "Here are a great many facts, but what is it they prove? Only that the faculties of man arise, grow, and acquire strength in proportion as the body does; and that these same faculties are weakened in the same proportion as the body is. But from all these circumstances, it does not follow that the faculty of thinking is an attribute of matter, and that all depends upon the manner in which our machine is made; that the faculties of the soul arise from a principle of animal life, from an innate heat, or force, from an irritability of the finest parts of the body, from a subtile, ethereal matter diffused through it, or in a word from all these taken together."

In regard to his conception of matter, La Mettrie attribute to it the qualities of extension, motion, and feeling. He does not name sensation as an attribute of matter, but reduces sensation to motion. Accordingly, both La Mettrie and Condillac, in their conception of man, identify motion, or sensation with judgment, reason, imagination, desire, and passion.

Helvetius says: "All the operations of the mind are reducible to sensations of the mind, and that man's permanent advantage is his organisation." Luzae remarks that "Luzae's Man More than a Machine, p. 23."

"Luzae remarks that Luzae's Man More than a Machine, p. 25."
this no more proves that organisation is the chief merit of
men than that the form of a musical instrument constitutes
the chief merit of the musician. In proportion to the
goodness of his instrument, the musician charms by his art,
and the case is the same with the soul."

Condillac held: "That there exists no soul or sensi-
tive substance without remorse, that there is something in
the animal besides motion, therefore, they are not pure
machines, they feel." La Mettrie, also, attributed remorse
to animals, but he believed that they were none the less
machines.

f20, "Iusac says in comment: "That renders these
systems of Empiricism completely ridiculous is that the
persons, who pronounce men mere machines, give them pro-
perities that belie their assertion. If things are but ma-
chines, why do they grant a natural law, and internal sense;
or a kind of dread? These are ideas which cannot be ex-
cited by objects that operate on our senses."

La Mettrie held: That our sensations determine in us
the mental state that is called the will; for the sensations,
that affect us, decide the soul either to will, or not to
will; to love, or to hate, according to the degree of
pleasure, or pain, therefore, the freedom of the will is de-
nied. Also that matter is self-moving as motion is one of
the essential properties of matter. But the nature of mo-
tion is as unknown to us as that of matter, that both matter
f20, Iusac's Man More than a Machine, p. 65.
and motion have existed from eternity in the most plausible explanation. So, if there is nothing in the universe but matter and motion, it inevitably follows that man is merely a complicated machine.

It has been suggested that La Mettrie's materialism grew out of his insistence that the dualistic system of Descartes was contradictory. He criticized Descartes's statement concerning the absolute independence of the body and the soul, and consequently took great pains to show the dependence of the soul upon the body.

Although, La Mettrie's system may be opposed to that of Descartes from one point of view; yet from another, his system appears to be a direct consequence of it. La Mettrie, himself, recognized this relationship, and felt that his doctrine -"That Man is a Machine"- is a natural inference from Descartes's teaching that animals are merely machines.

La Mettrie and Descartes differed fundamentally in respect to the nature of matter; since the former disbeliefed in any spiritual reality and being an empiricist, he gave matter the attributes of motion and thought, while the latter insisted that the one attribute of matter is extension.

Le Mettrie held: That all the differences in men are due to a difference in constitution and organism. #21.

"There is a great similarity between the doctrine of La Mettrie, and that of Toland, and it is quite interesting to note their points of similarity and difference. It is #21. Condensed from a note on La Mettrie's Man is a Machine, P. #185."
quite probable that La Mettrie had studied Toland's in which
the point most emphasized is that motion is an attribute of
matter. Toland's argument for this belief is that matter
must be essentially active to undergo change, and that the
conception of inertia is based upon the assumption of ab-
solute rest. But this absolute rest is nowhere to be found;
and since motion is essential to matter, there is no need to
account for the beginning of motion. Those who have regard-
ed matter as inert have had to find some efficient cause for
motion, and to do this, they hold that all matter was ani-
mated. But this pretended animation is utterly useless as
matter itself is endowed with motion. This doctrine is very
similar to that of La Mettrie, as he opposed the doctrine
of the animation of matter, and the belief in any external
cause of motion."

La Mettrie, Condillac, and Helvetius agree that expe-
rience is the source of all knowledge, and La Mettrie's
development of reason from imagination, it is said, may
have suggested to Condillac "the statue man," or the way to
develop all the faculties of the soul from the senses. As
La Mettrie had said: That reason is but sensation, or that
reason was the sensitive soul comparing its ideas; and
that imagination plays the role of the soul, while Condillac
elaborates the same idea, and shows in great detail how all
the faculties of the soul are only modifications of the sen-
sations.

In respect to the unknown character of the soul, La
Mettrie says: §22, "How can we define a being whose nature is absolutely unknown to us? Upon this ground, he has based his argument against the reality of a spiritual substance; yet he admits in the same paragraph that the nature of motion is as much unknown to us as the nature of matter. It is difficult, then, to see why there is more reason to doubt the existence of spirit than to suppose that motion and sensation are identical.

§23, John Locke says: "It is for the want of reflection that we are apt to think that our senses show us but material things. Every act of sensation, when duly considered, gives us an equal view of both parts of nature—the corporeal and the spiritual. If this notion of the immaterial spirit may have, perhaps, some difficulties in it not easy to explain, yet we have, therefore, no more reason to deny, or to doubt the existence of spirit than we have to deny, or doubt the existence of body, because the nature of body is cumbered with some difficulties very hard, and, perhaps, impossible to be explained and understood by us."

In regard to the existence of God, La Mettrie does not doubt as all probability speaks for it. For our peace of mind, however, it is indifferent to know whether there is a God; or whether, He created the world, or whether the World is eternal. As to teleology, he says that we cannot be sure that there is any purpose in the world. In this §22, La Mettrie's Man is a Machine, p. #140.

respect, Condillac differs from La Mettrie by affirming that
we can discern intelligence and purpose throughout the uni-
verse.

In regard to atheism, #24, La Mettrie holds "That the
world will never be happy, unless it becomes atheistic.
That if atheism was generally accepted all forms of religion
would be destroyed, and cut off at the roots, no more re-
ligious wars, no more soldiers of religion—such terrible
soldiers, nature infected with sacred poison would regain
its rights and purity. Deaf to all other views tranquil
mortals would follow only the spontaneous dictates of their
own being, the only commands, which can never be despised
with impunity, which alone can lead us to happiness through
the pleasant paths of virtue."

La Mettrie finds the life principle not in some parts
of the body, nor in the whole body, but in each separate
part as each tiny fibre of the organized body is stirred by
the life principle belonging to it.

Materialism claims to have a Bible of its own; and as
our notion of a Bible implies something that is God given,
and superior in wisdom and truth and when such a book is
accessible, it would hardly be fair, or courteous to ignore
such a worthy book, and independent of such high authority
to pursue our way, while attempting to evaluate its system,
hence, we shall now examine Holbach's System of Nature.

In the first place, we shall note how the System of
#24, La Mettrie's Man a Machine, p. #127.
Nature regards nature in its entirety. §25, "Nature is a great whole of which man is a part, and by which he is influenced. The beings, who were placed outside of nature have always been creatures of imagination, of whose character, we can form an idea as little as we can of their abiding place, and mode of action. There does not, and cannot exist anything beyond the sphere that includes all creations. Man is a physical being, and his moral existence is only a special aspect of his physical nature; a particular mode of action, which is due to his peculiar organisation. Everything that the human mind devised for the improvement of conditions is but a consequence of the reactions between his impulses, and the nature that envisions him. Even the animal proceeds from simple needs and forms to ever more complicated ones; and this is also true of the plants.

Our knowledge is reduced to sensation, which is made a derivative of motion. All of our inadequate ideas are due to a want of experience. The world shows us everywhere nothing but matter and motion. It is an endless chain of causes and effects; the most various elements are continually reacting on each other, and their different qualities and combinations constitute for us the nature of individual things. Nature in the widest sense, then, is the combination of different elements in individual things in general; but in the narrower sense, the nature of a thing is the sum of its properties and their modes of actions.

If, then we say that nature produces an effect, we must not personify nature as an abstraction, but we mean only that the effect in question is a necessary result of the properties of some one of the things forming the great whole that we see.

In his theory of motion, Holbach adopts the theory of Toland. #26, He says: "Every thing is in virtue of its peculiar qualities, capable of certain movements. Thus our senses are capable of receiving impressions from certain objects. Of no body can we know anything, unless it directly or indirectly produces a modification in us. Every movement that we perceive either removes a whole body to another place, or it takes place among the smallest particles of this body, and produces changes that are perceptible to us only through the properties of the body. Movements of this kind are at the bottom of the growth of plants and animals, and the intellectual activity of man."

In explaining the nature of movement, Holbach further proceeds in his argument by distinguishing between external and internal movements, external movements are communicated to the body from without; spontaneous, if the cause of movement is in the body itself. Among the latter is reckoned, in case of man, his walking, speech, and thought. But we find on closer examination that strictly considered, there are no spontaneous movements.

As to the freedom of the will, he holds emphatically #26, Quoted from F.A. Lange's History of Materialism, Vol. 2, p. #79.
that the human will is determined by external causes.

The communication of movement from one body to another is regulated by the immutable laws. Everything in the universe is in constant motion, and all rest is only apparent. Matter and motion are eternal, and creation out of nothing in an empty phrase.

In this account of motion, Holbach does not state Toland's theory of motion with due precision. For Toland shows that rest must not only be always understood relatively, but also that at the bottom, it is itself only a special case of motion as just as much activity and passivity are involved, when a body in the conflict of forces maintains its place against the opposing forces as when it changes its place.

In respect to his theory of matter, Holbach is not classed as a strict Atomist. He assumes, however, elementary particles but he does not pretend to know the ultimate nature of them as only a few of their qualities are knowable, but he is firm in affirming that all modifications of matter are the consequence of motion.

§27. "Between what are called the kingdoms of nature, there exists a continual exchange and circulation of material particles. The animal acquires new strength by the consumption of plants, or other animals. Also, air, water, earth, and fire aid in its maintenance. But the same elements, under other forms of combination, become the cause

of dissolution. Yet, immediately, the same constituents are, again, worked into a new formation. Such is the invariable course of nature; this is the everlasting cycle that must be described by all existence."

In explaining the regularity of events, he goes back to the fundamental forces of nature. Combination and separation, according to his view, depends solely upon attraction and repulsion. He says that they are related to each other in the manner suggested by Empedocles; i.e. as love and hate. Between cause and effect rules necessity in both the moral and physical world.

In regard to the conception of order and disorder, he denies the existence of disorder. His argument is this: "But since in the world everything is equally necessary, there cannot in nature be any possible distinction between order and disorder. Both conceptions belong only to our reason, and, as with all metaphysical notions, there is nothing corresponding to them outside ourselves. If we wish to apply these notions to matter, we can only mean by order the regular succession of phenomena, which is the result of the invariable and natural laws; while disorder remains a relative notion, embracing only those phenomena by which an individual thing is disturbed as to the form of its existence, although, there is no disturbance at all, looking from the stand-point of the whole. Hence, there is in nature no such thing as order and disorder. We find order in

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Condensed from Lange's History of Materialism, Vol. 2, p. 103
everything that is conformable to our nature; disorder in all that is contrary to it.

The immediate consequence of this view is to eliminate from our minds the notion of the possibilities of miracles.

In regard to teleology, he says: In the same way, we create within ourselves the notion of an intelligence acting with purpose, and its antithesis—the notion of chance. The whole can have no purpose, because outside of it there is nothing at which it could aim. We regard as intelligent such causes as operate after our manner of thinking; and consider the operation of others, in opposition to our way of thinking, as the play of blind chance.

In a similar way, the notion of good and bad must be regarded as merely relative and subjective, like those of order and disorder, intelligence and chance.

source of all human corruptions; he tries to eradicate all
foundation for this morbid tendency of mankind, and, there-
fore, pursues the deistic and pantheistic ideas of God—that
were yet so dear to his age—with no less zeal than he does
the idea of the Church. It was this skeptical attitude that
provoked so much hostile criticism of his philosophy in gen-
eral. He complained that religion is harmful and pernicious
as it promises pardon to the bad, while it overwhelms the
good by a superfluity of its demands. The former are, there-
fore, encouraged, while the latter are disheartened.

"He insists that the very name of God should be vanish-
ed; even though it be regarded as identical with nature, from
the sphere of human thought. Religion, he says, is a mys-
tical tendency in man's nature, which has all the symptoms
and characteristics of a disease, and which is the cause of
all the evils that afflict humanity. For as soon as the idea
of God is given at all, the human heart will seize upon it;
and will give it poetic shape, personification, and also
dedicate to it some sort of worship, and adoration, the in-
fluence of which will henceforth, will be almost independent
of the logical and metaphysical origin of the idea. Hence
the tendency of religion, which continually breaks through
the limits of logic, is of less value than poetry; nay, it
is absolutely harmful, therefore, we must get rid of the very
name of God; for in this elimination only lies the keystone
of a true philosophy representing nature. #30."

#30, Condensed from Lange's History of Materialism, Vol.2,
p. #128.
According to Holbach, Art, religion, and metaphysics should all be classed together for they are only the work of imagination.

He is expressly bitter towards the Christian religion as is indicated by the following: #31, "Christianity and Buddhism teach a thorough cult of poverty and mendicity. The doctrine of atonement is irrational. How is God's goodness and omnipotence compatible with the evil in the world? Why is not the religion of others as good as ours? Why are the servants of God so malicious and vindictive? Why are there not still miracles? How can God be angry? How can three times one make one? How can a virgin bear a child? How can a man, body and all soar up into the blue sky?"

Holbach is the only one of the group of philosophers mentioned herein, who frankly adopts a fatalistic and atheistic view of the universe; in this respect his teachings are the culmination of French materialism.

His absolute denial of the possibility of the existence of God is an inference from his belief that matter and motion are the elementary substances.

A fair example of the meeting of extremes is found in the closing lines of this chapter. Although, throughout the chapter, Holbach has begged his readers to free humanity forever from the phantom of Deity and even to abolish His name; yet this very same chapter ends with an invocation to Nature and Her Daughters; i.e. Virtue, Reason, and Truth, and to #31, Quoted from Lange's History of Materialism, Vol.3, p.405.
those Deities only, he says, belong incense, and adoration. Thus the System of Nature having destroyed all religions, becomes itself a religion. Such is the Bible of Materialism.

From what we have reviewed, in the foregoing pages, in our examination of materialism, it is obvious that the principle of thoroughgoing materialism is decidedly antagonistic to the notion of soul as a subsisting entity. Although a form of Materialism, such as both Newton and Boyle approved of, which bases teleology on mechanism itself, would in all probability be construed in such a way as to harmonize, or, at least, not to be altogether inconsistent with our notion of soul as an entity. For, in view of the foregoing, it seems to us that the distinction between Materialism and Animism is not to be found in the mechanical characteristics of the world as a whole, nor in its inanimate objects, but rather the distinction lies in the principle that matter and motion as opposed to soul, or mind, are the ultimate elements, and as such they are eternal. An implication of such a conception is that mind, spirit, or soul is only a derivative character only whose existence is measured by the life of the body. This is in harmony with modern Materialism; for Bain §32, says: The argument for two substances have, we believe, now entirely lost their validity; they are no longer compatible with ascertained science and clear thinking. The one substance, with two sets of properties, two sides, the physical and the mental, a double faced-unit—would appear to comply with all the exigencies of the case."

§32, Alexander Bain's Body and Mind, p. §196.
Chapter V.

THE COMPARATIVE ADEQUACY OF EXPLANATION.

A retrospect of the preceding chapters discloses the fact that the divergent and conflicting views, which have been and are now advanced as to the ultimate component elements of the soul, may be subsumed in three classes as follows: (1), Two substances both material; A, the prevailing conception of ancient Animism; B, Also the conception of most of the Greek philosophers; C, and the early Christian Fathers. (2), An immaterial and a material substance; A, The origin of this conception is attributed to Socrates, and was elaborated by Plato and Aristotle; B, the view of the later Christian Fathers, beginning with Augustine; C, approved by the Scholastics and Descartes; D, still the prevalent opinion. (3), One substance, mind and matter the same. A, The expression of crude materialism; B, a form of pantheistic Idealism; C, guarded or qualified materialism which recognizes a distinction between mind and matter.

In the course of time, the Animistic conception of the soul was still further refined and embellished with diverse characteristics; a summary of which is here given: (1), The soul must partake of the nature of Deity. (2), The soul has no determinate place in the body. (3), Reason or thought—the power of cognizing the universal—is incompatible with matter. (4), The dignity of the soul requires an essence superior to matter. (5), Matter is divisible, the soul is indivisible. (6), Matter is changeable and corruptible,
while the soul is a pure substance. (7) Mind is active and possesses force, but matter is passive and inert, the acted upon. (8) The soul is the primary source or principle of life. (9) The mind has a personal identity, but the particles of the body are continually changing.

The Animistic soul, on account of its double materialism, has few, if any adherents, among either the scientists or the philosophers of the present time, yet the vast majority of men regardless of race or environment still cling to this ancient belief. A real battle, however, is an apt name for the age long contest which has been furiously waged, on the one hand by men of science, who are the champions of the derivative soul of materialism, and on the other hand, by men of philosophical persuasion, who defend the soul as an immaterial entity.

Although the battle still continues, yet the opposition between the two schools of thought reached its climax towards the close of the eighteenth century as a partial reconciliation, at last, was the result of the Kantian philosophy in which a neutral plane was provided for. Like the old compromise between philosophy and religion which was based upon the notion that truth was two-fold, Kant convinced the philosophers that they might accept the materialistic conclusions of science without giving up all that they held most dear; and the scientists, being quite delighted by this concession, have shown their willingness to concede something, too, for they substituted for the crude materialism
of their predecessors a neutral Monism. In this way Animism, friendless and forlorn, was relegated to the past.

"In the process of the reconciliation of science and philosophy, at the cost of Animism, which only in recent years has made rapid progress, a great part has been played by the exposition of a variety of solutions of the psycho-physical problem; the essential feature of all of these are the denial of all psycho-physical interaction, and the insistence that all the processes of the organic world, including the behavior of men and animals, are capable in principle of being fully explained in mechanical terms. They may, therefore, be classed together under the head of Automaton theories; though the clumsy expression anti-Animistic theories would bring out more clearly their common opposition to Animism. These formulations range from the crudest materialism on the one hand to the grossest subjective Idealism on the other, and a few authors oscillate uncertainly between the extreme varieties of Monism."

A, In considering these theories we shall begin with Epiphenomenalism: "According to this theory, the stream of consciousness accompanies the flow of brain processes, each detail of the stream of consciousness being dependent upon some specific feature, or detail of the total brain process with which it coincides, or to which it immediately succeeds in time." It is probably that Huxley did more than anyone else to define and give currency to this theory; #1, Condensed from McDougall's Body and Mind, p. #126.

#2, Condensed from " " " " " " " " p. #126.
he is also responsible for its name as he suggested that the stream of consciousness should be called the Epiphenomenon of the brain-processes. Epiphenomenalism implies causal dependence. Accordingly, the universe is a system of forces, or of matter and energy in which every event or process is completely determined, or caused by an antecedent physical process by virtue of the laws of mechanism, and all organisms, including man, come under the sway of this immutable law. All that we call consciousness, sensation, feeling, emotion, imagination, memory, or thought is only the result of the physical-chemical processes which occur in the brain; i.e. each new element being called into existence by a corresponding process in the brain, and ceasing to exist when the process comes to an end. In view of this there is no trace of psychical activity; all psychical existence is conscious only, and consciousness consists of a stream of fragments, or elements of consciousness appearing simultaneously or successively, merely subsisting for a moment, and then disappearing, without in any way influencing one another, and without reacting upon the brain processes by which they are produced; the causal sequence and all true activity belong to the brain processes; the relation of consciousness is one of dependence without reciprocity. Consequently this theory makes the soul a derivative as primacy is given to matter, therefore, it must be classed as materialistic. Living organism is the result of increasing complexity of the atomic structure of the molecules of an external world. A further implication is plausible; i.e.
if for any reason brain matter should cease to exist all consciousness would disappear from the world. This is the only alternative to Animism open to the materialist, who believes the physical world to consist of matter. It is the soul that we studied in chapter four; i.e. what we described as the derivative soul of materialism.

The inadequacy of the explanation is obvious for the following reasons; a, Epiphenomenalism is diametrically opposed to the law of continuity as the appearance of consciousness at some indefinite point in the course of the evolution of the animal kingdom, as affirmed by it, constitutes a distinct breach of the law of continuity. b, The argument from inconceivability can be directed against Epiphenomenalism more strongly than against Animism; for the notion that material processes should generate consciousness out of nothing is certainly a more difficult conception than that of interaction between soul and body. c, Epiphenomenalism, although it may be consistent with the law of the Conservation of energy, is in decided conflict with an older and better established law; i.e. the law of causation; for it assumes that a physical process; i.e. a molecular movement in the brain causes a sensation, but does so without the cause passing over in any degree into the effect, or sensation. d, Epiphenomenalism in assigning to mind an insignificant, dependent, and ineffective position in the scheme of the universe, sets itself in direct opposition to the overwhelmingly large majority of philosophers
of all times and of all races.

B. Psycho-physical parallelism: This theory is that the physical and psychical processes are equally real, but there is no causal relation between the two; the two series; i.e. psychical process of any mind and the physical processes of the brain, with which they are associated merely accompany one another in time; the same as two railway trains running side by side on a double track, or two rays of light, projected towards the same distant point, run parallel to each other in time and space; and within each series, the law of causation holds good; i.e. the successive steps being related to the preceding and succeeding steps as cause and effect; but no causal links stretch across from one series to the other. #3. "This theory is not seriously maintained except in the form of universal parallelism of the psychical and the physical. To assume that of all the physical processes, just certain brain processes alone, are accompanied by conscious concomitants, would leave the relation too mysterious; the coming into being of a sensation at the moment of occurrence of a brain process of a certain quality would be too miraculous." If we accept the principle of causation at all, we must assume that the rise of sensation in consciousness is in some sense the effect of a cause; and if we do not accept the principle of causation, we have no ground for believing in the existences of brain processes, save as one's own thought of it; and it would #3. Condensed from McDougall's Body and Mind, p. #152.
then be absurd to speak of parallelism, for my sensations do not run parallel with, and are not temporal concomitants of my thoughts of my brain processes.

This insuperable objection to partial parallelism is avoided by universal parallelism; for according to this doctrine, every physical process has its psychical concomitant, and both series are closed causal series. Yet the serious difficulty which prevents us from accepting universal parallelism is this: Why, then, of all the steps of psychical sequence does this one alone appear as the element of my consciousness, and why does it become conjoined with similar elements to form the coherent field of consciousness of the movement in which these several cortical processes occur. A similar difficulty stands in the way of every form of psycho-physical parallelism monism; and it is an insuperable difficulty for them all. It is sufficient to point out that parallelism is less acceptable than the identity hypothesis; because it is open to all the objections that can be made to it, and incurs in addition the very great reproach that does not lie against them, namely, it asserts the relation of universal concomitance, and leaves it absolutely unexplained. Hence, this doctrine involves the admission of the ultimate unintelligibility of things, and involves an ultimate dualism, which can only be got rid of by adopting the identity-hypothesis; it can not therefore compete seriously with it for acceptance. Restricted parallelism is held only as a working hypothesis, or as an
heuristic principle, making no claims to metaphysical validity. Therefore, the alternative to Animism, in view of the insuperable difficulties of psycho-physical parallelism must be the identity-hypothesis in one or the other of its two forms.

C. Phenomenalistic Parallelism, Identity Hypothesis A.

#4, "Under this heading, we may put together the closely allied formulations of the psycho-physical relation suggested by Spinoza and Kant respectively, for both regarded body and mind as but two aspects of one reality. Spinoza's doctrine is, perhaps, more properly called the two aspect view, in distinction of Kant's phenomenalistic parallelism. The principle of causation belongs entirely to the unknown series of the real processes, which appear to us under two aspects—the psychical and the physical. This form of the identity-hypothesis implies the metaphysical doctrine known as realistic Monism. It asserts that the reality, or real being, of which mind and body are but appearances, is not immediately given to, or known by us. This underlying reality may be regarded as an unknown and unknowable X. This was the teaching of Herbert Spencer and also of Kant. But those who, on other grounds, adopt a Pantheistic Meta-physics will naturally follow Spinoza in affirming that the real being is God."

The chief objection to this theory is that our experience with physical phenomena in respect to observing a

#4, Quoted from McDougall's Body and Mind, p. #132—33.
double aspect of the same thing affords no true analogy, when such experienced facts are offered as an explanation of the psycho-physical relation. McDougall puts all of our double aspect experiences into three classes as follows: (1) A series of events observed on two successive occasions, and on each occasion from a different standpoint; e.g. viewing the revolution of the moon from a position on earth, and then, from a position on the moon itself. In this case the difference of appearance depends on the difference of standpoint; the observation of movements in space from two different standpoints in space. (2), The abstraction by thought of two features of a process successively; thus on considering the motion of a particle, a person may fix his attention successively upon its direction, or change of direction of its motions, or upon the velocity, or change of velocity of its motions. (3), The apprehension of a physical event successively through two senses; e.g. one may see the strokes of a hammer, or may hear them; the one series of events, then, appear under two different aspects. Accordingly, there are no other different classes of experience that give meaning to the phrase-two aspects of the same process. Now the pertinent question is what is the analogy, if any, between these experiences in which, we are aware of a double aspect and the psychical and physical processes.

In answer to this McDougall says: #5, "As regards the experiences of all these classes, it is to be noticed that #5, Condensed from McDougall's Body and Mind, p. #156."
that which appears under two different aspects appears in every case as of the same order in both aspects and is apprehended in a similar way in both cases; in the first class, both aspects are of the order of paths of motion in space; in the second class, the two aspects are simultaneously given as a qualitative change of one series of sensations; in the third class, the two aspects of the one process are the sensations of two different classes simultaneously excited in the same consciousness and referred to the same cause, the physical process.

But the brain process and the rise of sensation in consciousness, which are said to be the two aspects or appearance of one real process, are two events of radically different orders, and are apprehended in two radically different ways, the one by sense perception, and the other by reflective introspection." Attention is also directed to the fact that in the experience of the first class, we do not really observe the same process under two aspects, we merely observe a repetition of a process of a certain kind on two successive occasions, further, it is a characteristic of the experience of this class that the appearance of the process at one standpoint may be inferred or exactly calculated from the appearance at another standpoint by a purely logical process; but nothing of this nature is true of the relation of the psychical and physical as we cannot in the least degree deduce the nature of one series from the observation of the other. Spinoza claimed that the causal
sequence is given under both aspects, i.e. the psychical and the physical. But when we abstract the direction of motion from velocity, we find no causal sequence in both aspects, for in each case we dealing with only a partial aspect. Another objection to this two aspect doctrine is this: a thing can appear under two different aspects only when both aspects are witnessed by the same observer. In the case of the physical and psychical processes, which are said to be two aspects of one real process, there is no observer occupying the inner standpoint and witnessing the psychical aspect of the real event.

#6, "As to Spinoza's form of this hypothesis, Sir F. E. Pollack has greatly weakened it by the following unanswerable criticism: Spinoza's attributes are in effect defined as objects, or rather objective worlds. But the general form of the definition disguises the all important fact that the world of thought, and that alone is subjective and objective at once. The intellect which perceives an attribute as constituting the essence of substance, itself belongs to the attribute of thought. Thus if we push the analysis further we find that thought swallows up all the other attributes; for all conceivable attributes turn out to be objective aspects of thought itself."

Kant regarded all nature as a mere sum of phenomena in an ego which is unknown to us. By this I, he, or it, which thinks, nothing more is represented than a transcendental #6, Condensed from McDougall's Body and Mind, p. #159.
subject of thought, which is cognized only by means of thoughts that are its predicates, and of which apart from these, we cannot form the least conception.

Hume, in admitting that the transition from movement in space to perception and thought is inexplicable, says: "I can never catch myself at any time without a perception, and can never observe anything, but a perception. When my perceptions are removed for any time as by sound sleep, so long as I am insensible of myself, it may be truly said that I do not exist. If any one has a different notion of himself, I cannot reason with him. He may perhaps perceive something simple and continual which he calls himself, though I am certain that there is no such principle in me. But setting aside the metaphysicians of this kind, I may venture to affirm of the rest of mankind that they are nothing but a bundle, or a collection of different perceptions which succeed each other with an inconceivable rapidity."

D. Psychical Monism, Identity Hypothesis B, or Mind.

stuff theory. #7, "Consciousness according to Psychical Monism is the only reality, and the consciousness of each of us partakes of this real nature; all that each man calls matter, or the physical world is but the form under which consciousness, other than his own, is manifested to him; so that if I could observe the processes of your own brain while you are thinking, I should be observing the phenomenal manifestation of your consciousness. According to this #7, McDougall's Body and Mind, p. #133."
doctrine, then, causal efficiency is wholly confined to the psychical series, and matter and its processes are but as it were the shadows thrown off by thought." It is then the converse of Epiphenomenalism, which regards thought as the shadow thrown off of matter. This form of the identity-hypothesis implies a metaphysical doctrine which is usually designated idealistic Monism, but is better described as realistic or objective psychical Monism. It must not be confused with subjective Idealism; this also is a psychical Monism, for it maintains that my thoughts or consciousness alone exists. But while subjective Idealism denies the existence of the physical world and other minds than my own except as ideas of my own mind, objective psychical Monism maintains the objective existence both of things that appear to me as composing the physical world and other minds like my own, while holding that they are all of the same nature, namely consciousness.

Of all the anti-animistic answers to the psycho-physical problem, the second form of the identity-hypothesis is said to be the most widely accepted at the present time and which has been the most thoroughly elaborated. #8, McDougall says: Again according to this theory, Consciousness is a composite stuff, and conscious processes are the rearrangement of the pieces of stuff. But this is to make these atoms of mind stuff into enduring self-identical units of substance. It is substantial atomism of the most un-

#8, McDougall's Body and Mind, p. #162.
disguised kind, a simple translation of the material atom of physics into a psychical atom; and since these psychical atoms obey, according to the theory, the laws of mechanism, it is difficult to see that they differ save in name from the physical atoms."

This theory assumes that our mental states are composite in structure, i.e. they are made up by joining similar states together. Hence our mental states are simply compounds, but how a motion could become a feeling is inexplicable; how at the dawn of consciousness a new nature is acquired by the physical atom is beyond our widest stretch of imagination. For if the evolutionist is going to be consistent, he must maintain that all new forms of being, that from time to time make their appearance, are really nothing more than the result of the redistribution of the original unchanging materials as a different theory would destroy the continuity in the data of the world.

In regard to this, James says: #9, "A consistent theory of evolution must make room for consciousness at the very beginning; so we must assume, if we are going to have a working hypothesis, that there were at first two kinds of atoms; and the material atom forms material things, and that the mental atom forms mental things. This must be granted for the following reason: As it has been shown to be an undeniable fact that the self compounding of mental states is an illusion; for all the combinations, which we actually #9, James's Principles of Psychology, Vol.1, p. #180.
know, are effects wrought by the units said to combine upon some entity other than themselves. And it follows without this medium or third factor a combination is an impossibility. In concluding his discussion of the theory of Mind-stuff, he continues by saying: We can show authority for the statement that no possible number of entities, whether forces of material particles, or of mental elements can sum themselves together, for each remains in the sum what it always was; and the sum exists only for the person who overlooks the units; for no summing up of the parts can make a unity of the distinct constituents, unless the unity exists for some other subject—not the mass itself."

None of the exponents of this theory attempt to account for the unity of the mind, but call it an insoluble riddle, and pass on. F.A. Lange, for example, in his History of Materialism says: 

"In regard to the metaphysical riddle, i.e. how out of the multiplicity of atomic movement there arises the unity of the psychical image, we hold this riddle, as we have often said, to be insoluble."

These automaton theories as a solution of the psycho-physical problem do not even afford a very satisfactory explanation to men of science. James for example, while basing his Principles of Psychology on sensationalism, yet rejects each and all of the above named automaton theories, and frankly admits that the soul theory is the only logical one.

#10, Lange's History of Materialism Vol. 3, p. #213.
The inadequacy of mechanism in Physiology as a principle of explanation has been acknowledged; for mechanism has no explanation for generation, regeneration, and restitution following mutilation. In all cell activity there is manifested some power of selection, of regulation, or of synthesis, which resists all attempts of mechanical explanation. Even so simple a process as the secretion of a fluid through a very thin membrane shows itself to be more than a process of filtration; moreover, the most common characteristic of all animal function; i.e. the contraction of the muscle fibres cannot be explained in terms of mechanism. #11, Professor E.B. Wilson says: "The investigation of cell activity has on the whole rather widened than narrowed the great gulf which separates the lowest form of life from the phenomena of the inorganic world."

After explaining that the adult organism develops from a single cell, the fertilized ovum, Dr. Haldane, in the Presidential address before the Physiological Section of the British Association, 1908, says: #12, "To effect this, the germ-cell must have a structure almost infinitely more complex and definite than that of any cell in the adult organism. Hence the physico-chemical doctrine of life must postulate in the germ cell a physico-chemical mechanism of a complexity beside which that of any tissue-cell of the developed organism, wonderfully great as that must be supposed to be, seems simplicity itself. For the mechanism of #11, The Cell Life, 1890, p. 89.

#12, Condensed from McDougall's Body and Mind, p. #134.
the germ cell, if the assumption be true, must somehow contain the potentiality of the specific, complex, and widely different mechanisms of all the cells of all the many different tissues of the body; and at the same time it must contain the potentiality of the exact but very complex grouping of these cells within the tissues, and of the ordering of the various tissues in relation to one another; relations which are of extreme complexity, involving in all the organs not merely definite juxtaposition of cells and tissues, but the most complex interpenetration of tissues of several kind; e.g. liver cells, connective tissue, blood-vessels, nerves, and ducts."

"It must be remembered also that according to the assumption, which we are examining, the mechanism of the germ-cell must contain the potentiality of determining not only the structure and function of the organs of the vegetative, and of the muscles, bones, skin and hair, in short, of all that presents itself to our immediate observation in the adult organism; but also, most incredible of all, it must contain the potentiality of all that secret structure within the nervous system, which is supposed to be the mechanical basis of all the inherited mental powers; all of the enormously complex and precise structure which must underlie such functions as spatial perception, and the various modes of instinctive behavior that are proper to each species."

"Besides all the foregoing elements, the ovum must contain, in the form of precise spatial arrangements of highly
complex molecules, the potentiality not only of all the characters that the individual has in common with all members of his species, but also all the inherited peculiarities which distinguish him from his fellows; such characters as are musical, or mathematical geniuses; or those idiosyncrasies, or tricks of thought, manner, and feeling, whose innateness is proven by their cropping out in various members of the family, who have not come into personal contact with each other. Nor is this all, for besides the specific and the individual innate characteristics of the adult, we have to attribute to the germ-plasm a large number of potentialities that remain latent. For besides the visible changes that the germ-plasm manifests, we must believe that it is crowded with invisible characters proper to both sexes, to both the right and left sides of the body, and to a long line of male and female ancestors, separated by thousands of generations from each other; and these characters like those written on paper in invisible ink lie ready to be evolved whenever the organism is disturbed by a certain or unknown condition."

"Further, this viscid speck of matter, the germ-plasm has to be supposed, not only, to be at any moment, or period of its existence, a structure of enormous complexity, precision, and definiteness, but also to preserve the structure with extreme faithfulness through thousands of millions of years, and in spite of all the vicissitudes of constantly repeated divisions, and constant growth by the assimilation
Yet in another way the principle of mechanism is refuted as experiments show conclusively that the development of an organism may be interfered with at various stages, in the most gross mechanical manner, without preventing the production of the typical form of the species; i.e., a perfect complex organism. In view of this, it is obvious that the development of the cell cannot be explained in the terms of mechanism. Hence in order to account, in a manner, at least, for the mystery of the developing cell, biologists were compelled to make use of a principle, other than mechanism, a principle which they called Vitalism, symbolizing in a manner the soul, and serving as its substitute.

Driesch distinguishes between two modes of manifestation of teleological control as statical and dynamical respectively; and holds that the latter-dynamical teleology—which is true vitalism, is implied by the facts observed in the development of the cell, and also in its regeneration and restitution after mutilation. Further, he assumes as the basis of all life in addition to its physical and chemical elements, a non-energetic, and immaterial force which controls and directs the development of organism, to which he gave the name of Entelechy, an Aristotelian expression.

Biological Evolution: In accordance with the Darwinian theory, it is now generally conceded that both plants and animals have a common ancestry. This discovery necessi-
tated a change in the old conception of teleology, which
was based upon the notion of immediate creation. But a new
interpretation of teleology has kept pace with the recent
advances of mechanism; and the readjustment of the doctrine
of final causes has been brought about in such a way as to
construe the Darwinian system as essentially teleological.

714. "The arguments that are advanced in order to ex-
clude the mechanistic view are as follows: It is claimed
that the Darwinian system may be summed up under five points:
i.e., heredity, variation, struggle for existence, natural
selection, and sexual selection. In each generation of
plants and animals, the off-spring in the main inherit the
characteristics of their parents, this is the law of here-
dity, but they are never completely like their parents,
hence the law of variation. Since the rate of production in
each generation is in excess to the amount of sustenance,
and is further reduced by climate and environment, and con-
flict with the same, or other species, it follows in this
struggle for existence that those survive only which have
inherited the most favorable variation. This kind of se-
lection has gone on from time immemorial, and is the way in
which new species have been evolved. Sexual selection is
the reason assigned to explain the brilliant plumage and the
superior singing of the male birds, on the theory that the
males most favored with these characteristics won the most
attractive female.

714, Wright's Philosophy of Religion, p. 321.
Teleologists claim that the struggle for existence implies a teleological side as mere particles of inorganic matter could not struggle with each other, or with a hostile environment for existence. Hence Darwinism logically rests on teleological grounds. Except the few cases that can be brought under the head of sexual selection, the theory does not explain useful variations, therefore the explanation of useful variations must be attributed to a teleological agent.

Another defect is apparent, in this: If variations only appear in a few individuals of each generation, it is probable that such individuals would fail to mate with individuals of like variations, hence the variations would unlikely be transmitted to a succeeding generation.

#15, "A serious objection to the mechanistic view is based upon the nature of the constitution of an organism, which Darwinism does not attempt to explain. This unsolved problem is the secret power of restitutions of functions and the regenerations of organs after injury. The power of regenerating a lost limb can have been acquired neither by use-inheritance nor by natural selection, for it is a power called into use, but by a few creatures of each generation; and while it is a power highly advantageous to a few individuals, which have occasion to use it, yet it is of little importance to the species as a whole.

#16, "De Vries has proposed this modification of the

#15, Quoted from McDougall's Body and Mind, p. #251.

#16, Quoted from Wright's Philosophy of Religion, p. #324.
Darwinian theory. Instead of new species developing from old ones by slow variations, De Vries believes that the change, from one species to another, when the environmental and the internal conditions are favorable, takes place in a single generation. Such variations he calls mutations. The cause of variation, however, is left to chance; the same difficulty to which Darwinism is exposed."

"Pauly and France, among other French biologists, find an inner vital force of a psychical nature which directs the activities of the organism, and their evolution in a teleological manner."

From these facts, it appears to be a reasonable inference that Darwinism has not succeeded in accounting in a mechanistic way for the teleological features which characterize the organisms. In concluding our discussion under this head, we call attention to a remark of Professor J.A. Thomson, who says: #17, "If we call the organism an engine, it must be self-stoking, self-repairing, self-preservative, self-adjusting, self-increasing, and a self-producing machine."

The interpretation of animal and human behavior in the terms of mechanism is likewise an inadequate explanation. The mechanical assumption is based upon the theory that all nervous processes are of the reflex type. This in conjunction with the principle of Association psychology constitutes its working hypothesis. Accordingly, the behavior #17, Quoted from Wright's Philosophy of Religion, p. #319.
of the lowest organism is nothing but a series of tropisms; i.e. direct local reaction to physical and chemical stimuli. But the progression of the amoeba, which has been mechanically interpreted as due merely to diminution of surface tension, has been shown by the studies of Mr. H. S. Jennings to involve a streaming movement of protoplasm, and such movements are incompatible with that or any other of the suggested mechanical explanations. "18, "Animal behavior, whether at a low or high level, exhibits two peculiarities which distinguishes it from the movement of inorganic things; namely, (1), the total nature of the reaction; i.e. the reaction of the organism as a whole with the co-ordination of the movement of its parts in response to a stimulus directly affecting one small part only. (2), The persistence of the effect of the stimulus; a persistence closely analogous to that persistence of varied movement, which in ourselves, we recognize as the expression of a persistent effort after a desired end; and to this, it must be added that these persistent, varied and total reactions of the whole organism are in the main adaptive; i.e. of such a nature as to promote the welfare of the creature."

In respect to purely instinctive actions, Mechanists have classified such actions as compound reflexes of a purely mechanical type. The Animist, however, does not admit of such a classification, but holds that the higher, or more complex instinctive activities are evoked not by a simple #18, Quoted from McDougall's Body and Mind, p. #260.
sense-impression; for such instinctive activities, he insists are evoked only by complex groups of sense stimuli, which are received from objects of a particular kind. Every instinctive act that depends for its initiative on the reception by the eye of an image of some object is of this kind; and that many purely instinctive actions are thus initiated is an indisputable fact. Accordingly, the behavior of these lowest forms of animal life is thoroughly at variance and inconsistent with the mechanical notion, which describes them as compound reflexes.

The behavior of the higher insects, in which the modes of reaction become complicated by the result of individual experience, are characterized by the same peculiarities, only in a greater degree, which renders still more difficult any mechanical explanation.

#19, "The higher animals and human beings also exhibit instinctive reactions in response to impressions that are still more remote from the simple sense-impressions; these are in a higher degree irreconcilable with the notion of compound reflex action of a mechanical type." In support of this, there is cited the cry of distress uttered by a human infant; the scratch reflex in a dog whose brain has been removed; and the instinct of curiosity as displayed by many of the higher animals as well as humans.

#20, "A favorite way of showing the impossibility of a

#19, Condensed from McDougall's Body and Mind, p. #267.

#20, " " " " " " " p. #265.
mechanical interpretation of human behavior, is to resort to a reductio ad absurdum argument. According to this argument, for example, if the mechanical interpretation is accepted, we are compelled to regard the order of sequence of all the letters that make up the text of the Bible, or of a play of Shakespeare as being in principle capable of purely mechanical explanation, one which makes no reference to the meaning of words and sentences."

While the foregoing argument is relevant, yet it is possible to present it in a more telling and emphatic way, if we assume that a man received the following telegram:
Your son is dead. The physical agent to which the man reacts is a series of black marks and a piece of paper. The reaction outwardly considered as a series of bodily processes consists, perhaps, in the total cessation of all activities that are common to life, or in the complete change of the whole course of the man's behavior throughout the rest of his life. Yet the altered course of his life bears no direct relation, whatever, to the nature of the physical stimulus. The independence of reaction, on the nature of the physical impression is clearly demonstrated, if we only omit the first letter in the above telegram which, then, would read: "Our son is dead". Here the reaction is totally different from the reaction in the former instance, although the physical stimulus has not been radically changed. From these illustrations, it is obvious that meaning is the essential link in each case between the series of physical
impressions, and the series of physical effects, which are the result of our reactions; and that both human and animal reactions are mechanically inexplicable.

That other great characteristic of behavior, namely, persistency of effort with variation of means, is also exhibited by human beings in a degree far surpassing any of the animals. The desire for revenge is an example showing the element of persistency in our mental constitution as it may persist for many years before an opportunity for carrying it into effect is available; while on the other hand, a different person under the same provocation may exercise self control, and even forgive the offense. Yet both of these cases are beyond the range of mechanical explanation.

The modern Mechanist, as we have seen, in order to maintain his position, relies on three points; Viz, first; That the behavior of the lower organisms consists wholly of a series of reflex actions, or tropisms, and that these are purely mechanical movements; secondly, that instinctive action is only a compound reflex action; thirdly, that all intellectual operations merely consist in the compounding of sensations and in the associative reproduction of one sensation, idea, or impression by another, and that volition is nothing more than the reproduction of an idea of movement on which the movement follows in a mechanical fashion.

#21, "The validity of these propositions, however, have not stood the test of time. We have noted that the behavior of even the lowest animal present features which defy #21, Condensed from McDougall's Body and Mind, p. #271."
a purely mechanical explanation; and that these features become more and more prominent as we trace the nodes of behavior up the scale of life. Instinctive actions are not merely compound reflex action of a mechanical type. For the reason that such actions imply synthetic activity; and in consequence of this, the manifold of sense-stimuli becomes the occasion of a unitary reaction of the whole organism; a reaction whose nature is dependent, not merely upon the nature of the several stimuli, but upon the meaning, or significance which the organism discovers in their conjunction, and upon the relation of this meaning to its own dominant purpose at the moment."

Again, we have also noted in human behavior the independence of the reaction on the nature of the sense-stimuli, manifesting itself in such a degree, that on the one hand, diverse conjunction of sense-stimuli evoke the same reaction; and on the other hand, a conjunction of sense-stimuli differing only in respect to some minute detail may evoke a totally different reaction; that the dominant part in the determination of reaction is performed by meaning, which the individual discovers in the sensory presentation; by the value which he attaches to this meaning; and by the relation of this value to his settled purpose.

It now devolves on those who claim that behavior is explainable on the basis of mechanism to show how these factors; viz, meaning, value, and purpose may be mechanically conceived.
In regard to the nature of the mind, Bosanquet says:

"22, "We are a unity because our pains, or our pleasures affect our whole being at once, and our being only. Unity is the solid and continuous quality, the focused feeling which the man before him simply is. Thus, unity is the seamless continuity by which the individual passes into the universe."

In discussing consciousness, he says further: #23,

"Consciousness is distinguished throughout by its reaction to an object in which three terms are discernable; namely, act, content, and object; these are discriminated as inherent in the relation."

The Neo-realist rejects the act, and refuses to distinguish the content from the object apprehended, while the Critical-realist recognizes content, as distinct from the object of thought, as the essence. Sensations are the primary experiences which enter into the sense-perceptions.

In his analysis of the mind, Russell says: #24, "Consciousness is a complex and far from a universal characteristic of mental phenomena. Mind is a matter of degree; chiefly exemplified in number and complexity of habits. What we actually observe in the mind is a train of particulars—particulars of external actions of sensations and images. Everything else in the mind, which we think that we

#22, Quoted from Bosanquet's Three Chapters on the Nature of the Mind, p. #40.
#23, Quoted from Bosanquet's Three Chapters on the Nature of the Mind, p. #48.
#24, Quoted from Russell's Analysis of the Mind, p. #79.
are aware of, is built up out of particulars such as these."

To which Bosanquet replies as follows: #25, "But an idea or a concept is not an image, although it may make use of an image. It is a habit of judging with reference to a certain identity. The universal, and even our awareness of it, comes before language is developed. For as soon as we can distinguish between the senses of sameness and difference, we are aware of the universal. So in addition of the mind being only a train of particulars, we must take notice of its unity which is the result of the operation of the universal through the laws of judgment and inference:"

Russell works with mental images instead of the thoughts of objects. In memory, Bosanquet says: "instead of the image of--, we have the relation of similarity; and that Russell's theory of truth, which consists in an equation of single signs of facts to single facts, and single signs of relation to single relations, would destroy the coherency in nature. In support of this, Bosanquet says: "We are not here being told that what is true resembles its objective; but that what is true fits into the system of reality in such a way that by taking large portions of the system in connection, we find propositions connected with them which must be held on pain of abandoning the portions, hence the thinking mind is not a complex of sensations and images."

Thought, according to Russell, is mainly identifiable with responses to sense-stimuli, which are governed by habit.
including the use of language. But in this connection Bosanquet mentions the fact that what we are chiefly indebted to Plato for, is the recognition of the universal as operating constructively through reproductive association to effect the binding together of memory and inference through a common root; i.e. the marriage of the universals.

Still referring to thought Bosanquet says: #26, "That thought, being neither sensations, nor images, nor any combination of them, is the essential characteristic of the mind, and neglecting to assign it a place of its own right, Russell has made an omission which completely mars his analysis."

According to Bosanquet, the universal operates by means of judgment and inference within the train of particulars, which are what we light upon at any moment, while considering the mental contents of consciousness. The operation of which is the mode by which the reality, the growing and coherent body of experience, governs our psychological processes, and is what we mean by thought. It is that which refers the image to the object, which is the meaning of the sign or image, which thought affirms between sign and object.

Bosanquet, having thus described thought as the chief element of the mind, proceeds to distinguish it from consciousness, which he defines as a loosely connected bundle of psychical occurrences; i.e. sensations, images, pleasures, pains, emotions and appetites; also the power of distinguish-
ing a subject and object as either absent, or occasionally attended to. Query: Is thought the act of consciousness?

In concluding this chapter, we shall cite one more authority in favor of the anti-mechanical explanation of life. #27, J.S. Haldane says: "We cannot resolve life into mechanism; but behind what we at present interpret as physical and chemical mechanism, life may be hidden for all we know. This is an open scientific question: but the question whether life may not some day be resolved into physico-chemical mechanism is not an open question. No possible meaning can be attached to such an expression as "the mechanism of life."

#27, Mechanism, Life and Personality. Chapter 4, p. #143.
Chapter VI.
The Cartesian Fallacy.

Ancient Animism, as we have seen, identified the human and animal soul, accordingly, they stood on the same level, and no discrimination was made in favor the one or the other. But aside from this recognition of Animism, from the time of Pythagoras till the end of the first half of the seventeenth century, no philosopher disputed or denied the attribution of a soul to the lower animal. Such was the situation in respect to the animal soul, when near the end of the first half of the seventeenth century, Descartes, in defiance of all philosophy and science, and common sense, promulgated his pernicious theory of animal automata. In this strange and startling innovation upon past thought, he makes the animal a soulless machine, a machine which in one point of view only had superiority over man made machines, and this point of advantage consisted wholly in the fact that the animal machine is self-starting, hence the term automata.

The soul-atoms of Democritus had been attributed by the materialists without discrimination to both animals and humans; the ancient doctrine of the Animist that the mind of the animal and the human were the same in kind, and differed only in degree had not been questioned by any recognized authority prior to the teachings of Descartes. Hippocrates, even in his day, had been impressed with the close analogy between human and animal life, and in support of this we quote the following: "Animals are not born and
do not die, and that things that are supposed to begin and perish only appear and disappear." Had Descartes given the animal the derivative soul of materialism, it would not have been so radical a departure from past philosophic speculation, for in this event there would have been no discrimination against the animal in favor of man as the nature of the soul of both would still be the same in kind and differing only in degree.

But in view of this irrational discrimination, it would be difficult to exaggerate the numberless evil consequences that have followed in its wake. It gave a fresh impetus to the reviving materialistic thought of the seventeenth century; for the analogy between animal and human organism was too close to warrant so radical a distinction as logical consistency demands that we must either attribute a soul to the animal, or make men a machine too.

Accordingly, it was not long before men was proclaimed a machine, and consciousness and thought were identified as sensations, and sensations were defined as of old as the motions of the atoms. It came about, therefore, that this materialism in regard to animal life was in succeeding generations extended to mind.

The following is a statement of Descartes's denial of the existence of the animal soul: "As for the brute beasts, we are so accustomed to persuade ourselves that they

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#1, Duncan's Tr. of the Philosophical Works of Leibnitz, p. 75.
#2, Descartes Discourses on Method, Part 1, p. 56.
feel just as we do, that it is difficult to rid ourselves of this opinion; but if we were also accustomed to see automata which should imitate perfectly all those of our actions which they could imitate and remain automata, we would have no doubt whatever that all animals without reason are also automata, because we would find the same difference between ourselves and them as between ourselves and automata as all the organs which are required to produce those actions which occur in the automata are found in the bodies of the animals."

In support of his theory, Descartes relies upon the two following arguments, respectively: #3. "Of these the first is that animals could never use words, or other signs arranged in such a manner as is competent to us in order to declare our thoughts to others; for we may easily conceive a machine to be so constructed that it emits vocables, and that it emits some corresponding to the action upon it of external objects which cause a change in its organism; for example if touched in a particular place, it may demand what we wish to say to it; if in another, it may cry out that it is hurt and such like, but not that it should arrange them variously so as appositely to reply to what is said in its presence as men of the lowest grade of intellect can do.

(2). "Although such machines might execute many things with equal, or perhaps greater perfection than any of us, they would without doubt fail in certain others from which it would #3. Descartes Discourses on Method, Part 1, p. #60."
be discovered that they did not act from knowledge, but solely from the disposition of their organs; for while reason is a universal instrument that is alike available on every occasion, these organs, on the contrary, needs a particular arrangement for each particular action; whence it must be morally impossible that there should exist in any machine a diversity of organs sufficient to enable it to act in all occurrences of life in the way in which our reason enables us to act."

By means of these two tests he draws a line of distinction between men and animals. He then proceeds to show that there are no men so dull and stupid, not even idiots, as to be incapable of joining together different words in such a way as to form a sentence by which they can give expression to their thoughts. Yet connected articulation in any degree is beyond achievement of the most intelligent of the animals. He further calls attention to the fact that this inability does not arise from a deficiency of organs; and cites in proof of this that such birds as the magpie and the parrot do utter words like ourselves, although it is quite obvious that they do not understand what they say, but speak merely by rote. He then contrasts this inaptitude of the animals with the ability of men who, although born deaf and dumb, are capable of inventing a system of signs by means of which they make their thoughts known to others; all of which proves, as he says, "that animals not only have less reason than men, but that they have none at all."
In respect to the second argument Descartes says that in observing the movement of animals and men, we should note and distinguish between two kinds: namely, the mechanical, or corporeal, which depend solely upon the force of the animal spirits and the configuration of the bodily parts, which may be called the bodily soul; and the other movements which depend solely upon the manifestation of mind, or soul, which may be called the incorporeal soul. He now tells us that after much inquiry and serious thought he arrived at the conclusion that the motions of the animals proceed not from both of these agencies, but from one only. 4. "Because it is certain that in the body of the animal, as in our own, there are bones, nerves, muscles, blood and animal spirits, and other organs, disposed in such a manner that they can produce of themselves, without the aid of any thought, all the movements that we observe in the animals, as appears in convulsive movements, when, in spite of the mind itself, the machine of the body moves often with greater violence and in more various ways than is it wont to do with the aid of the will; moreover, in as much as it is agreeable to reason that art should imitate nature, and that men should be able to construct divers automata in which there is movement without any thought, nature, on her part, might produce these automata in which there is movement without any thought."

He now shifts the argument to a psychological point. 4, Torrey's Philosophy of Descartes, p. 286.
of view in which he denies the animal the faculty of
thought. He also, in respect to the animal, makes feeling,
imagination, memory, and sensations physical qualities.
In accordance with this, he insists that animal life is the
expression of the complexity of their mechanism; but animals
have no self consciousness and, therefore no souls or minds,
for without self consciousness there is no thinking.\(^5\)
"Descartes conceives no middle ground between thinking and
extended being. Man is both, while animals is only the
latter." Life, for Descartes, is not soul at a lower level,
but is out of relation to it; life is simply an affair of
the body, which may be explained in the terms of physics.
He rejects sense and imagination as modes of thinking, be-
cause he does not wish to bring the animal into too close a
relation to man; otherwise, it might be said that if
animals have sense, it would follow that they have a mind
too, at least, of a low sort. He does not deny in a phy-
sical sense that sensations, memory, appetites and imagina-
tion are not a part of the animal constitution as these are
too self evident. But, according to this, the animal has
no mind at all, at least, in the ordinary sense of the
word. Because in respect to the animal there is a positive
denial as to thought, while sensation, feeling, memory, and
imagination are considered merely as physical qualities,
pertaining to the body only. Yet, under these circumstances,
without a mind or any mental equipment whatever, Descartes'"\(^5\)
G.C. Robertson's Elements of Philosophy. p. \#262.
soulless animal has achieved an unparalleled degree of success in adjusting itself to a hostile environment—and in view of this we cannot help but think what the animal might have been had nature not discriminated in favor of man.

There are so many insuperable objections to the Animal machine doctrine, which is diametrically opposite the well established principles of both philosophy and science that it is only for the sake of regularity that we recount them. We have already called attention to the inadequacy of mechanism in physiology as a principle of explanation, for as we have seen mechanism is no explanation for generation, regeneration, and restitution following mutilation. For, in all cell activity, there is manifestly some power of selection, of regulation, or of synthesis, which resists all attempts of mechanical explanation—even so simple a process as a secretion of a fluid through a very thin membrane shows itself to be more than a process of filtration; moreover, the most common characteristic of all animal function; i.e. the contraction of the muscle fibres cannot be explained in terms of mechanism. We conclude our objections from a physiological point of view to the Cartesian brand of materialism by referring to the remark of Professor E.B. Wilson, cited in chapter V. p. #194. "The investigation of cell activity has on the whole rather widened than narrowed the great gulf which separates the lowest forms of life from the phenomena of the inorganic world."

From a modern psychological view, Descartes's inter-
pretation of animal behavior in terms of mechanism is likewise an inadequate explanation. Even from the stand-point of the derivative soul of materialism, it is a rejected hypothesis, for Atomistic psychology holds that the animal and the human soul are the same in kind, but differ only in degree. This is the answer of materialism to the Cartesian notion, for according to this school the only valid distinction in respect to soul between humans and animals is that of degree.

While Atomistic psychology is more consistent than that of Descartes, yet it makes a fatal omission in failing to assign to the soul the primary place in either the animal or human organism.

The mechanical assumption, as we have already observed, is based upon the notion that all nervous processes are of the reflex type. This in conjunction with the principle of Association constitutes its working hypothesis. Accordingly, the behavior of the lowest organism is nothing but a series of tropisms. But this view does not seem to be consistent with the facts. For animal behavior, whether at a low or high level, exhibits two peculiarities which distinguish it from the movement of inorganic things; namely, (1), the total nature of the reaction; i.e. the reaction of the organism as a whole with the co-ordination of the movements of its parts in response to a stimulus directly affecting one small part only. (2), The persistence of the effect of the stimulus; a persistence closely analogous to
that persistence of the varied movement, which in ourselves, we recognize as the expression of persistent effort for the attainment of a desired end; and to this it must be added that the persistent, varied, and total reactions of the whole organism are in the main adaptive; i.e. of such a character as to promote the welfare of the creature. In view of these two common characteristics of animal behavior it seems frivolous to seek their explanation by attributing it to mechanism, on account of account of the character of its language, or by denying that its movements are rational. The total reaction and the persistency of effort are characteristics which are wholly irreconcilable with Descartes's mechanical conception of the lower animal.

In respect to purely instinctive actions, Atomistic psychology has classified such actions as compound reflexes. But the Animist rejects this classification, and holds that the higher, or more complex instinctive activities are evoked not by a simple sense-impression, for such instinctive activity, he insists, are evoked only by a complex group of sense stimuli, which are received from an object of a particular kind. For every instinctive act that depends for its initiative on the reception by the eye of an image of some object is of this kind, hence, it is true that many instinctive actions are thus initiated. Accordingly, the force of this argument shows conclusively that instinctive reactions are synthetic in character and are inexplicable on any view of the Cartesian conception of animal life.
Now, for an affirmative argument in favor of the animal soul, we call to notice the analysis of the mind by Alexander Bain: "The fundamental separation of the powers of the mind results in three distinct divisions, (1), Discrimination, the sense, feeling, or consciousness of difference; (2), Similarity, the sense, feeling, or consciousness of agreement; (3), Retentiveness, or the power of memory, or acquisition. As an ultimate analysis of the mental powers, this enumeration cannot be increased or diminished. It is the whole intellect. The fact called mind and the fact called material are the most widely contrasted facts of our experience."

In view of the above analysis, we are now confronted with the question, then contrasting it with that of Descartes, which of the two is the more reasonable exposition of the mind? If Descartes had said that thought was the chief characteristic of the mind, and, at the same time, had admitted that memory, feeling, and imagination were also component parts of the mind, which, we think, is consistent with sound psychology, he could never have made the mental constitution of the animal a basis for his refusal to assign to it a soul analogous in kind, at least, to that which he gave humans. To make feeling, memory, and imagination, alone, properties of matter is a species of materialism that cannot claim even self-consistency, for in speaking of feeling, memory, imagination, and reason, we only do so for the

#6, Alexander Bain's Body and Mind, p. #55.
sake of analysis as these are only different features of the one and the same thing; i.e. mind, soul, or the permanent self. To say that the permanent self is half material and half immaterial as Descartes does, when he eliminates memory, imagination, feeling, from the unitary mind, is so in consistent and at variance with the nature of things that it leaves the impression of insincerity. This charge has been preferred against Descartes by La Mettrie, who said in his "Man a Machine" that Descartes was aware that in logical consistency, the inevitable inference that man, too, was a machine, would follow, but he disavowed this implication in order to promote his welfare with the priests.

History notes the fact that among the evil consequences of this theory, there was an increase of barbarity in the treatment of animals; many of Descartes' followers in the practice of vivisection proceeded upon the theory that animals were immune to all pain; and regarded the animal's condition, while undergoing the torture of vivisection with as much indifference as if they were operating upon inanimate bodies.

But by this transfer of feeling from the mental to the physical organism, along with sensations, imagination and memory, he seeks to avoid the recognition of the fact and its implications that feeling has a natural and universal language. In support of this we quote: #7, "It has been noticed in all ages and in all countries that feeling pos-

#7, Bains Body and Mind, p. #12.
senses natural language, or expression of its own. So
constant are the appearances characterizing the different
classes of emotions that we regard them as part of the emo-
tions themselves. We have the same way of conjecturing what
passes through the animal mind as we do the human mind. The
smile of joy, the puckered features in pain, the stare of
astonishment, the quivering of fear, the tones and glances
of tenderness, the frown of anger, are united in seemingly
inseparable association with the state of feeling they
indicate."

The following quotation from Hume apparently concedes
to the animal a mind which differs only in degree from the
human mind. "It seems evident that animals as well as
men learn many things from experience, and infer that the
same events will always follow the same causes. By this
principle, they become acquainted with the more obvious
qualities of external objects and gradually from their birth
treasure up a knowledge of the nature of fire, water, earth,
stone, height, depth etc., and of the effect that results
from their operations. The ignorance and inexperience of
the young are here plainly distinguishable from the cunning
and sagacity of the old, who have learned by long observation
to avoid what hurts, and to pursue what gives ease and plea-
sure. A horse that has been accustomed to the field, be-
comes acquainted with the proper height which he can leap,
and will never attempt what exceeds his force and ability.

#8, Hume's Inquiry Concerning Human Reason, Section 9, p.#398.
An old greyhound will trust the more fatiguing part of the chase to the younger, and will place himself so as to meet the hare in her double. These conjectures, which he forms on such occasions, are founded on nothing but his observation and experience."

"This is still more evident from the effect of discipline, and education on animals, who by the proper application of reward and punishment, may be taught any course of action, even if it is contrary to their natural instincts and propensities. Is it not experience that renders a dog apprehensive of pain when you menace him, or life up the whip to beat him? Is it not experience that makes him answer to his name, and infer from such an arbitrary sound that you mean him rather than any of his fellows, and that you intended to call him, when you pronounced his name in a certain manner and with a certain tone and accent?"

"In all of these cases, we may observe that the animal infers some fact beyond what immediately strikes his senses, and this inference is altogether founded on past experiences; i.e., the animal expects from the present object the same consequences, which it has always found in its observations to result from similar objects. It is impossible that this inference of the animal can be founded on the process of argument, or reasoning by which he concludes that like events must follow like objects, and that the course of nature will always be regular in its operations. For if there be in reality any arguments of this nature, they surely lie too deep..."
for the observation of such an imperfect understanding, since it may well employ the utmost care and attention of a philosophic genius to discover them.

Animals are not guided by reasoning neither are children nor mankind generally, nor are philosophers, for neither animals nor men infer effects from causes. Nature has provided another principle of more ready, and of more general use and application. It is custom alone which enables the animal from every object that strikes his attention to infer its usual attendants, and to carry its imagination so that from the appearance of one it can conceive the other in a particular manner which we call belief. No other explanation can be given of this operation in all the higher as well as the lower classes of sensitive beings which fall under our notice and observation." From this, it is clear that Hume does not distinguish between man and the animal in the manner Descartes does.

Neither physiology nor psychology has yet determined the seat of the soul, its substance, or its identity other than to say that the soul represents that part of our being which thinks, or in the language of Kant a transcendental subject of which we know nothing except by its predicates. Hence our conception of the soul is an inference, deduced from behavior. Accordingly, the only empirical proof that there is in man a subsisting soul is his conduct as the intangible soul, whether immaterial, material or both, is attributed by common consent to the reasoning element in us.
Hence the only clue or assurance, we have as to the existence of this reasoning element, which we call soul, is our behavior. Therefore, if it is logical for man to assert that he has a soul by reason of his rational conduct, why cannot we posit a soul, on the same parity of reasoning, for the animal, provided its behavior has the unmistakable characteristics of rationality?

If the soul cannot be discovered by methods practised in the laboratory, nor in the study of the philosopher, but reveals itself only in behavior, then, instances of behavior are surely relevant whether of human or animal experience, hence we introduce an eye witness in the person of W.D. Hubbard, who says: #9, "I have spent years in Africa studying animals, and I cannot explain their conduct by instinct alone—the wart-hog has learned to evade his pursuers; the honey-badger knows how to follow the honey-guide bird; and the fleeting elephants will return to help a wounded comrade—these and other acts convince me, they reason."

In respect to his account of animal life in Africa, the wart hog is one of the most defenseless, yet the most numerous of all the African animals. The only plausible reason to assign for his survival in such a hostile environment is that he possesses a sense of memory, a sense of direction, and the knowledge that the ant-bear hole is a refuge.

He next calls attention to the honey-guide birds in respect to certain aspects of their behavior. He describes #9, The American Magazine for July, 1927.
them as black and grey birds, in size about twice as large as an English sparrow. When one of these birds sees that some one is following, it flies from tree to tree chirping with great energy. If anyone follows it long enough, a bee's nest is his reward. The honey badger, the accomplice, of the honey-guide nearly as well equipped to dig out a bee's nest as a man is. Its forefeet are armed with powerful claws, its legs are strong and short, equally good for climbing, walking, or digging. The peculiar behavior of these animals is this: the honey-guide habitually flies up to the honey-badger, and they combine their efforts to rob the bee's nest as the honey-guide after locating the bee's nest sets out to find his partner in crime, the honey-badger. On being approached in this manner, the honey-badger follows his guide regardless of distance and obstacles, and when the partners eventually arrive at the bee's nest the badger tears it open with his powerful claws, and eats the honey and the comb, while the guide receives for his share of the spoils the fat grubs that fall from the mouth of the badger.

In commenting on this Mr. Hubbard says: #10, "It is a perfect partnership, and personally I believe that the bird knows what it wants, and that the badger understands the whole proceedings. I deduce from this that they both have memory, or the bird would not be able to return to the bee's nest, nor the badger be able to recognize its guide. I also conclude that both partners are able to reason, or there #10, Idem.
would be no object in the bird searching out an animal capable of opening the nest which it has discovered, nor would the badger follow the honey-guide on its wanderings, unless he knew that honey lay at the end of the trail. These actions of the bird and the badger do not seem to be instinctive. I believe that the badger learns the value of the honey-guide from the observation of its parents and from experience. The same is probably true of the bird."

This is followed by his conjectures concerning the peculiar and intelligent traits of the elephant. Among others, he asserts that the elephants have a language, or a series of calls by which they can communicate their ideas. There are a great number of these calls, or signals. When the elephants are at ease or feeding such a condition is invariably indicated by a clear loud trumpet call. There are, however, other calls that are not so agreeable to the ear, for instance, when wounded badly even a big bull will call for help. This call is a penetrating, screaming trumpet, and usually brings a hasty response. The elephants that come in response to the call is evidenced by their endeavor to get their helpless comrade away. If the wounded elephant is down, the rescuing elephants will attempt to get it on its feet. If it has a broken leg or shoulder, an elephant will walk on either side, and bolster up the stricken comrade, so that it can get away. It is said that in rescuing its comrade, the elephant exhibits a trait so touching and courageous that it has no parallel in animal history.
Elephants also trumpet when they scent danger. On such occasions, the call sounds only once, but the entire herd moves as if one, and disappear for some secluded and less dangerous locality. In the dry season, when most rivers presents a dry bed of white sand, the elephants obtain water by digging in the river bed. Are these actions performed without conscious design? Or do the elephants remember, discriminate, and reason?

As an illustration of animal forethought and prudence, he says: "Almost no animals lie down or stand up for a noon-day snooze without previously circling down-wind and back-tracking for some distance. They do this so that they will have forewarning of any enemy on their trail. Is this act instinctive, or is it performed with conscious design? I believe the latter, because all animals which I have tracked always had a sentry or guard on duty, for I have never yet found the whole herd of adult animals asleep."

In conclusion, he asks are all these actions only examples of instinct? or do they show that animals act with intelligence? The many variations in the habit and conduct of animals tend to convince me that animals often act with conscious design. Antelopes, for instance, know only too well that man means danger, yet when hard pressed, they will appeal to him rather than suffer the agonies of being torn limb from limb, while still alive. When five miles behind animals, they flee headlong, but they will return to feed."

"All, The American Magazine for July, 1927."
upon the salty roots. Young animals are born unafraid, of this Mr. Hubbard says that he is positive, still when they are adult, they possess all the fears of their species. Observation has convinced him, he says, that like human beings, animals learn through experience.

In connection with these facts and opinion concerning animal behavior, we quote the following: #12, "The artificial line drawn between instinct in the animal and reason as the prerogative of man has vanished. As Darwin puts it in the Descent of Man," "It is a significant fact that the more the habits of any particular animal are studied by a naturalist, the more he attributes to reason, and the less to unlearned instincts." "And the various stages of the reasoning faculty pass into one another by imperceptible gradations. The mind is far broader than consciousness."

In support of this, we have seen that psychologists of the present time generally concede that the so-called instinctive actions are not responsive to a single sense-impression for the stimuli are manifold in character, hence, we must attribute to these responses a synthetic character, which is thoroughly inconsistent with the notion of reflex action.

It is an evident fact that Descartes' conception of the animal and the Darwinian theory of evolution cannot be harmonized, for it would be less difficult to find a common meeting place for Moses and Darwin than to reconcile the con- #12, Edwards McClodd's Animism, p. #22.
flicting views of Darwin and Descartes in respect to human and animal organism. The verdict of Empirical-evolutionary psychology is that the animal mind exhibits substantially the same phenomena which the human mind exhibits in the early stages in the life of the child. Accordingly, psychologists of this school hold that the animal has as good a right to recognition as a mind-bearing creature as a child, and further, if we exclude the animal, we should exclude the child. And they also emphasize the fact that the development of the mind in the early stages is revealed more adequately in the animal, therefore to study man apart is to misconceive him. It is to refuse to apply the only key to the interpretation of his intellectual and spiritual history.

According to Empirical psychology, the animal remembers of storing up sensations in definite areas of the brain; it learns from experience that certain results follow certain experiences, or events; in a rough sort of a way it puts two and two together, and adapts means to ends. It distinguishes differences in things seeking the one and avoiding the other, a faculty which is attributed to experience.

As there is no good reasoning for doubting, we must concede that animals dream, therefore, according to Huxley; #13. "It must be admitted that ideation goes on in them while they are asleep, and in that case there is no reason to doubt that they are conscious of a train of thought, or ideas in their waking states."

#13, Collected Essays, Vol. 6, p. #124.
In discussing animal psychology, Edward Clodd says:

"Animals make an approach to highest mental operations in forming generic ideas of things; one of the most curious peculiarities of the dog’s mind is its inherent snobbishness, shown by the regard paid to respectability. The dog, who barks furiously at a beggar, will let a well dressed man pass without opposition. Has he not, then, a generic idea of rage and dirt associated with the idea of aversion, and that of sleek broadcloth associated with the idea of liking. In this matter so feeble is the conceptual faculty, the lowest savage of to-day is not on a much higher plane than the most intelligent animal."

As our final assignment of specific error in Descartes’s “Animal machine theory,” we might mention the fact that it sweeps away the law of continuity. In respect to which we quote the following. "The doctrine of evolution has no favored nation clause for man. It admits of no break in the psychical chain which links together the lowest life forms be these plants or animals. It finds no arrest of continuity between the bark of a dog and the orations of Demosthenes, or between the pulsation of the amoeba and the ecstasies of a saint."

It is apparent from this cursory review of authorities whether of science, or philosophy that Descartes in holding that the animal is merely a machine is standing practically
alone. To erect such an insuperable barrier between the most intelligent animal and the lowest savage, on the pre-tense that the former has no faculty of thought, while the latter has this distinguishing characteristic, in the face of physiology and psychology, is contrary to fact, and to life's experiences, and is repugnant to common sense; such a notion is only consistent with the crudest kind of materialism.

Those who believe that the human soul is only the motion of the fine atoms could consistently say that all organism is a machine, but not those who find in the neural processes no correlate of meaning, of value, and of purpose.
Chapter VII.
The Convergence of Testimony.

In this brief retrospect, it is our purpose to re-direct attention to the consideration of certain material objections, which we have interposed from time to time, in opposition to the theories of those who deny the existence of a spiritual substance. In reviewing these objections, we shall first consider those that were raised against the older type of materialism, identifying matter and spirit.

To re-state our objections to this form of materialism, it is necessary only to assert again that it is far more easy to conceive a spiritual substance than to conceive consciousness arising out of the motion of the atoms. Accordingly, #1, "To say that consciousness is a form of matter, or of motion is to use words without meaning. The identification of consciousness and motion cannot be refuted, but only because he who does not see the absurdity of such a statement can never be made to see anything."

The other of the older forms of materialism is called Epiphenomenalism. According to this solution of the problem, consciousness, while it is not to be identified with the physical organism, yet is caused by the physical processes that occur in the brain and therefore, consciousness is always an effect, but never a cause. This doctrine destroys the efficiency of consciousness by making it merely passive. Our objection to this is its inconceivability, for the notion that a material process should generate consciousness is #1, J.B. Pratt's Matter and Spirit, p. #12.
ness out of nothing is certainly a more difficult conception than that of interaction between soul and body. It also offends against the law of causation, for the cause—a molecular movement in the brain—does not pass over into the effect, namely the sensation. #2, "Consciousness, the materialist reminds us, is always an effect, and never a cause. And this means that every psychic state is determined by the correlated brain processes, and never in any way by a preceding psychic state. To say that a thought is a co-cause of the following thought would be to wreck materialism. In reasoning, therefore, it is a mistake to suppose that consciousness of logical relation has anything to do with the result. It is not logical necessity, but mechanical necessity that squeezes out the so-called reasoned conclusions. Take the familiar syllogism: All men are mortal; Socrates is a man; therefore, Socrates is mortal. The materialist assures us that we should be falling back into the primitive superstition of a pre-naturalistic age should we suppose that either of the premises had anything to do with our arriving at the conclusion. We finally assert that Socrates is mortal not because we have in mind the mortality of all men and the humanity of Socrates, but because certain mechanical processes in the brain force that thought into consciousness. Thus, no conclusion is ever arrived at because of logical necessity. The truth is, according to materialism, we think the way we have to think, the way our

\#2, Idem.

p. #19.
mechanical brain constrains us."

Aside from these, there are four new systems of philosophy, which are thoroughly materialistic in nature as they eliminate the mind, retaining only the body and object. Hence, it is fitting that we now mention them in this connection. (1), Pragmatism is both a method of investigation and a theory of truth. In regard to its being a method of investigation, the pragmatist holds that any theory, or doctrine should be tested by the result that follows from its acceptance. As a metaphysics pragmatism declares itself as follows: #3, "A careful inventory of our assets brings to light no such entities as those which we have placed to our credit. We do not find body and object and consciousness, but only body and object. The process of intelligence is something that goes on, not in our minds, but in things."

It is evident from this that the pragmatist has no psycho-physical problem to solve as the soul is eliminated. Professor John Dewey, a chief representative of this school, believes that real knowledge is of a practical kind, and that any knowledge without practical value is useless, hence he rejects the notion of the absolute and reduces reality to the flow of experience. #4, J.B. Pratt, criticizing Bode's Statement of pragmatism, says: "At least, at any rate, it is clear to the extent of showing that the pragmatist avoids #3, Prof. Bode, in Creative Intelligence, on Consciousness, p. 254. #4, J. B. Pratt's Matter and Spirit, p. #94.
the mind-body problem by denying the existence of mind alto-
gether—or what amounts to the same thing be interpreting it
wholly in terms of the body. Such an attitude towards the
problem is plainly materialism once more, and we should know
pretty well what to do about it."

The second variety of these new philosophies is called
Neo-Realism. According to this school, objects in them-
selves are neither mental or physical, but are neutral; such
an object neutral in itself may enter into and pass out of
various groups formed by other objects, and in so doing, it
may for a time become mental or physical according to the
situation, as when it is an object of an organ of perception,
it is mental, but while a member of a group of things out-
side of the mind, it is called physical.

This view will become more intelligible, if we note the
fact that the interactionist discriminates three terms in the
mind's relation to its object: act, content, and object.
The Neo-realist rejects the act entirely and refuses to
distinguish between content and object. This is in harmony
with the prevalent notion that we see things directly, and
makes no distinction between percept and the physical object.
J.B. Pratt shows the absurdity of this theory which identi-
fies mental content with physical and logical objects by the
following arguments: #5, (1), "The physical and physiolog-
ical processes of perception, as described by science and
never disputed, show conclusively that the physical object
which starts the perceptive process going is not identifiable with the percept which results from it. Whether we take a realistic or an idealistic view, there is such a thing as this watch, and there is such an event as its reflection of the ether waves. physiological psychologists assure us that these waves strike upon the retina and thereby set up certain processes in the optic nerve which is carried on into the occipetal region of the brain. Either immediately after this brain process has been set up or concomitantly with it, a sensation is born which we call a sensation of the watch. Now, the neo-realist is bound to hold that this sensation and the watch, which by its reflection of the ether waves started the whole process going, are one and identical—in spite of the fact that between the two are intercalated the entire physical and physiological series of events indicated above, and in spite of the further fact that such an hypothesis would seem to identify the sensation with its cause and the watch with its effect."

(2). "The visual images which two or more observers get from the same object, and which the same observer will get from it at varied distances and varied angles, since they differ from each other, cannot be identified with each other, and hence can not be identified with the object as the neo-realist can make to this objection is to identify every object with all its actual and possible appearances at any and every angle, and any and every distance, and thus explode each object to the extremest bounds of the spatial
universe,"

(3), "Since the process of perception takes time, the event which I perceive happens at a different moment from that at which I perceive it. Plainly when I see a star reflecting light the event which I see was over long before I saw it, and the star itself may have disappeared; and though in ordinary perception the time process is much shorter the principle remains the same. Similarly, when I remember an event of my childhood or a picture of the battle of Salamis, my mental content is an actuality of today, my object an event of forty or twenty-four hundred years ago. Yet in all these cases Neo-realism would identify the present conscious content with the past object. This, of course, is a manifest contradiction in terms, and the only way it can be avoided is by exploding each event to the extremes of time, just as on the same theory every object had to be exploded to the extremities of space, thus making of the universe a chaotic and jelly-like welter of interpenetrating neutral entities.

(4), "The neo-realist is forced to maintain that the content of one individual mind may be completely and numerically identical with that of other minds; that my thoughts and feelings may be actually yours; that my pain may be numerically your pain, and that our minds have in principle no privacy which others cannot pierce. Against this view it seems to me that Professor James is right when he asserts that the breaches between thoughts belonging to different
personal minds are the most absolute broaches in nature.

(5), "Some of the content of the mind seems to be conspicuously private and subjective, and incapable of even that semi-plausible identification with outer objects which superficially seems possible in the cause of veridical percepts and true ideas. I refer to ideas of non-existent objects such as round squares; emotions, impulses, pleasures, pains, values, consciousness of meaning, and peculiarly subjective qualities such as clearness.

(6). "Sixthly and finally I cannot forget the existence of error, illusion, and hallucination, nor can I conceive of any way in which these experiences can be explained unless we admit the distinction between the psychical and the physical as ultimate and different categories; and that consciousness as a psychical content cannot be identified with external objects, and the attempt to dodge the mind-body problem in this fashion will not work."

The third variety of these recent philosophical sprouts is called Critical Realism. It may be distinguished from the other forms of materialism; i.e. crude Materialism, Epiphenomenalism, Pragmatism, and Neo-Realism as it identifies consciousness with the whole of the individual's experience, and holds that the physical is the true reality and that it is knowable. Consciousness is that which can be immediately experienced; and that while the physical world, contrary to the doctrine of the Neo-realist, is never directly known; i.e. the Critical realist does not identify mental
content and object as the Neo-realist does, but he recognizes content as distinct from the object of thought as an essence, or quality.

In support of this theory, Professor Sellars says:

§6. Every living organism, when properly and adequately conceived, includes a consciousness. When the cortex functions, consciousness forms a part of the nature of the brain. The brain has at least two "variants" one of neural activity, the other conscious content; consciousness is thus a variant of the brain. Psychical entities are not substances, but rather peculiar characteristics of neural wholes. Consciousness is the brain become conscious. "Query: if we call consciousness, and the neural activity which controls our muscles two "variants," what is the relation, then, between the "variants"? §7. "By conclusion says J. E. Pratt, in closing his discussion of these new forms of Materialism, can only be that neither Neo-Realism, nor Critical Realism has brought forth a single consideration that makes the Materialistic hypothesis really easier of acceptance than it was at the time when nearly every thinker gave it up twenty years ago."

The fourth and last variety of the recent productions in philosophy is Behaviorism. Like Pragmatism, it also is both a method, and a theory of truth. For, in the beginning it was a method of psychology, dealing exclusively with the

§6, Critical Realism, #247.

§7, J. E. Pratt's Matter and Mind, p. #47.
objective side of consciousness in the terms of stimulus and reaction. Later, however, it was expanded into a metaphysical system, whose cardinal principle is, that consciousness is behavior. #3, Professor Watson says: "Of course a behaviorist does not deny that mental states exist; he merely prefers to ignore them. He ignores them in the same sense that chemistry ignores alchemy, and astronomy ignores horoscopcy. The behaviorist does not concern himself with them because as the stream of his science broadens and deepens such old concepts are sucked under never to appear again. Thought is not different in essence from tennis-playing, swimming, or any other activity except that it hidden from ordinary observation and is more complex." Hence, we are told that the activity of the organism is not the expression of thought but thought itself. Accordingly, Dr. Frost defines awareness as the relation between two neural areas, and holds that consciousness is not something inferred from behavior but is behavior.

After studying this system for a long time, I was sorely perplexed in trying to figure out how anyone familiar with the history of thought could put forth such wild notions. Relief to my bewilderment, however, came suddenly, when I happen to remember a saying of P. T. Barnum, the great showman, that a human sucker was born each second.

In support of our position against materialism, we quote this final argument:

#3, British Journal of Psychology, 1920, p. #94.
"The human soul is the subject or source of various spiritual activities, but the subject or source of spiritual activities must be itself a spiritual being; therefore the soul must be a spiritual being. The minor premise is merely a particular application of the axiom that the operation of an agent follows its nature. As the being is, so must it act. The establishment of the general truth of this principle is a problem for metaphysics; but all that is necessary for our purpose becomes evident on a little consideration of the axiom. An effect cannot transcend its cause; no action can contain more perfection, or a higher order of reality than is possessed by the being which is the source of the action. If, then, a mental activity can be shown not to be exerted by a material organ, or to be in any degree independent of a material organ, the principle from which the activity proceeds must be similarly independent. It is positively unthinkable that whilst the soul depended as regards its whole being on the organism, it should still in some of its exercises be in any way independent of the organism. If accordingly, any activities of the soul are spiritual or immaterial, then, the soul itself is spiritual or immaterial."

As a specific proof of the proposition that we are endowed with activities of a spiritual or immaterial kind, the following characteristics of the soul are mentioned.

(1), We are capable of apprehending and representing to our-

#9, Maher's Psychology, p. #469, Sixth Ed. 1906.
elves abstract and universal ideas. We can form notions of God. Accordingly, these higher mental functions must be admitted to be of a spiritual character; they thus transcend the sphere of actions depending by their nature on a material instrument.

(2). In the act of self-consciousness, there occurs an instance of the complete reflection of an indivisible agent back on itself. The Ego reflecting, and the Ego reflected upon is the same. It is at once subject and object. This is in direct conflict with the characteristics of matter. It is in absolute contradiction with the essential nature of matter: one part of a material substance may act upon another; one atom may attract or repel, or in various ways influence another, but the assumption that one atom can act upon itself is contrary to science and common sense.

(3). If any of man's volitions are free, if they are not the outcome of forces playing upon him, then, there must be within him an inner center of causality, an internal agent enjoying, at least, a limited independence apart from the organism. Yet self determination is as inconsistent with the nature of matter as self-consciousness is.

Aside from these considerations, if there is no freedom of the will, we have no basis whatever for any ethical system, therefore, in view of this argument, together with those that have been mentioned in the preceding chapters, we are compelled to believe that there is a distinction between matter and mind, and it is noticeable in either the
behavior of man or the animal, and in our opinion there is no better word to express this distinction than the word soul.

In closing our discussion of materialism, we might say that a meeting of the English psychologists at Oxford, 1920, a vote was taken and without a single exception, every psychologist rejected the proposition of identifying consciousness and behavior.

We have now considered all the different forms of Materialism, none of which is satisfactory, hence we reject each and every one, and assign for our reason that each variety destroys the efficiency of consciousness, making it an effect and never a cause.

Phenomenalistic Parallelism is also objectionable. This theory, as stated in a previous chapter, holds that mind and body are but aspects of one reality. The causal links belong to the uniform series of real processes, which appear to us under the two aspects, the psychical and the physical. It asserts that the reality of which the mind and body are appearances only is not revealed or known to us. This metaphysical doctrine is identified as realistic Monism. In addition to our previous objection to this form of Monism, we offer the following argument: §10, "Even were the Kantian distinction between the Numinous and the Phenomenon valid with respect to objects of the extramental world, it is only by misconceiving the character of knowledge derived from self-consciousness that this distinction can be ex-

§10, Saber's Psychology, p. #474, Sixth Ed. 1908.
tended to the mind's cognition of itself, or of its states. The external thing, which is different in kind from mind, is known by the latter through a mental modification, which might conceivably mislead as to the nature of its cause. But consciousness affords at all events an immediate knowledge both of my mental state and of myself in those states. There is no reason for appearances and phenomena here; the mind, the object of knowledge, is really immediately present to itself. I do not merely apprehend transitory mental states, which I am led to ascribe to an unknown substance, or cause; I am conscious that I originate, direct, and inhibit my mental states."

Psychical Monism holds, as we have seen, that consciousness is the only reality, that that we call matter is but the form under which consciousness other than our own is manifested. Accordingly, the causal efficiency is wholly confined to the psychical series, and matter and its processes are but, as it were, the shadows thrown by thought.

James after distinguishing this theory of psychical monism from the LeibnitzianMonadism says: "All, "The assertion that mental states can be compounded with themselves so as to produce the conscious states, which we know, is logically unintelligible; for it leaves out the essential feature of all combinations, we actually know. All combinations which we actually know are effects wrought by units said to be combined upon some entity other than themselves, with out this feature of a medium, or a vehicle, the notion #11, James's Principles of Psychology, Vol.1, Chap.VI.p. 158. 
of combination has no sense. No possible number of entities can sum themselves together, each remains in the sum what it always was; and the sum itself exists only for the bystander, who happens to over-look the units, and to apprehend the sum as such. The integration of a thousand psychic units must be either just the units over again, or else something real, but other than, and additional to those units. If a certain existing fact is that of a thousand feelings, it cannot, at the same time, be that of one feeling; for the essence of feeling is to be felt, and as a psychic existent feels, so it must be. If one feels like one of the thousand, in what sense can it be said to be the thousand?

The rejection of this solution of the Mind-body problem has exhausted all the explanations that philosophy has to offer except the ancient Animistic doctrine of interaction; for we have noticed that there were only four possible relations. (1), Body alone is causally effective and mind is merely a result. (2), Mind and body may flow on parallel with each other, each causally efficient within its own series, but neither never affecting the other. (3), Mind alone is efficient and the body merely a resultant, or an appearance of the mind. Having rejected each of these as an inadequate explanation, we have at last reached the fourth and the end of possible solutions, which philosophy has to offer.

This fourth solution affirms that mind and body mutually influence each other; this is the basis, as we have
seen, of Animistic philosophy.

In a preceding chapter, we conjectured as to the origin of the Animistic theory; we emphasized the fact that it was a universal belief, regardless of age, of race, or of custom; we identified its principles with the immortal names of Socrates, Plato, Aristotle, Plotinus and Augustine; and furthermore, we called attention to the fact that the history of philosophy, during a period of more than fifteen-hundred years, was the history of Animism.

But not withstanding this fine record of Animism, or Interaction, there are two arguments against it, which in fairness deserve our notice. (1). It violates the principle of causation, and (2), it is inconsistent with the law of the conservation of energy. In regard to the first objection, we quote the following answer to it. #12, "If you deny all causation you are a Solipsist, for without recognizing the validity of the principle of causation, you cannot get beyond your own consciousness. If you are an Epiphenomenalist, you believe that the brain processes are the cause of your thoughts, that is you believe in the action of the physical on the psychical, or causation of the psychical by the physical; and this, at least, is as difficult to understand as the action of the psychical on the physical. If you are parallelist, in the strict sense of the word, you leave the relation of the psychical to the physical as a perpetual mystery. If you accept either of the two remaining alternatives to Animism, you admit that matter is but phenomenal. #12, McDougall's Body and Mind, p. #209."
and either you assert that the nature of reality, which
underlies both body and mind, is unknown, or you maintain
that the reality underlying physical phenomena is mental in
nature; and in either case, the contention that there can
be no action of the mind upon the real process of which the
physical processes are the phenomenal would be absurd."

In regard to the second argument, it is based upon the
proposition that the amount of energy in the universe is
always fixed and constant, therefore, if no energy can ever
be created or destroyed, how can the physical energy of the
brain affect the mind, and how can the mind ever affect the
brain? It is evident, then, that on the one hand, we have
the creation of energy, and on the other hand, the destruc-
tion of energy. In answer to this objection, J.B. Pratt
says: \#13, "The only possible conclusion from the facts,
thus far known, is, there is absolutely no reason for main-
taining the universal applicability of the theory of the con-
servation of energy. The only argument in favor of such a
view is the argument from analogy, that since the theory
holds in the inorganic world, therefore, it must hold in
the organic and conscious world."

Aside from interaction, there is another type of Ani-
mism, which, in order to preserve logical sequence, we must
now mention before proceeding to a general discussion of
the Animistic doctrine. We refer to the theory of trans-
mission, advocated by James, and Professor Bergson;
"The theory holds consciousness is a stuff capable of being divided and compounded, like putty or plastic matter. Yet its parts endure and retain their identity, no matter what form, or aggregation, they may enter into. Consciousness is thus conceived as existing independently of material organism; either in dissimilated particles, or it may exist in great quantities as a psychical world, or a vast ocean. If it exists in particles, then, it is the function of our brain to concentrate and combine the particles into minds of a permanent form. But if it exists in great masses, then, it is the function of the brain to separate the psychic mass into parts, and to give to them finite form. According to this view, the brain is not an organ of production, but an organ of transmission. It is the mechanism that lets through, or brings into operation the stream of consciousness; this is large or small in proportion to the complexity of the organisation of the brain. The theory also holds that the organic world is not ruled by the blind sway of the mechanical law; it affirms that consciousness exists independently of the physical world in some vast ocean of consciousness, and that our consciousness is a ray from this source. Matter is regarded as a mere surfac veil of phenomena, hiding, and keeping back the world of genuine realities. Our brain is the only part of the body into which these rays of consciousness can pierce. It follows from this that both men and animals are conditioned in their

Condensed from James's Human Immortality, p. 15, 1898."
mental endowment in a less or greater degree by the pecu-
liarity of their organism."

Since the convergence of testimony compels us to re-
cognize the distinction between matter and an interacting
soul, we shall note its characteristics from the stand-
point of an interactionist. §15. "The soul is a being that
possesses, or is, the sum of definite capacities for psy-
chical activity, and psycho-physical interaction of which the
most fundamental are: (1), the capacity of producing in
response to certain physical stimuli, (the sensory processes
of the brain) the whole range of sensation qualities in
their varying intensities. (2), the capacity of responding
to certain sensation-complexes with the production of mean-
ings as for example spatial meanings; (3), the capacity of
responding to these sensations and these meanings with feel-
ing, and conation, or effort, under the spur of which fur-
ther meanings may be brought to consciousness in accordance
with the laws of reproduction of similars and of reasoning;
(4), the capacity of reacting upon the brain processes to
modify their course in a way which we cannot clearly define
but which may be provisionally conceived as a process of
guidance by which the stream of nervous energy may be con-
centrated in a way that counteracts the tendency of all phys-
ical energy to dissipation and degradation; hence, if the
soul is the sum of psychical capacities, it must be a psy-
chical being."

§15, William McDougall's Body and Mind, #365.
McDougall's rejects the Cartesian description of the soul as a thinking being, and says in substance: we cannot accept this description without reservation; our evidence at the present time allows us to say only that the soul thinks, or is conscious when interacting with some bodily organism; psycho-physical interaction may be, for all we know, a necessary condition of all consciousness. Yet Leibnitz and Lotze hold that the body in its real nature is an organized system of beings of like nature with the soul that thinks in us. And it follows from this that the thinking soul is but the chief of a hierarchy of similar beings. But according to McDougall, we must, instead of saying that the soul is a thinking being, attribute to it the capacity only to be stimulated to activity through the agency of the brain.

In accepting the theory of interaction, we must admit that there is a world of matter and a world of spirit. To which one of these worlds does our animal friend belong, or has he a share in both? Before discussing, from an Animistic point of view, the probability of the animal being a soul-bearing creature, we shall attempt to ascertain first into what category, other philosophical creeds would place him.

That would be his status in respect to a soul according the principles of Materialism? Now in my opinion, at least, the finest thing about a materialist is his generosity. Accordingly, he would freely share his derivative soul with the animal.
Would the Realistic Monist be in a position to discriminate against the animal in respect to soul? We think not, for according to his system, the bodies and minds of both men and animals are only phenomenal shadows, as it were, which are cast by an unknown reality. Therefore, it would be contrary to reason to deny the animal's partnership in this unknown, and unmovable reality as his relation to the unknown is analogous to that of men.

In view of his principles, could the psychic Monist deny the animal a soul? We must return the same answer to this as was given by the Materialist, and Realistic Monist. Because in harmony with the principles of this school the bodies of both men and the animal are only concrete expressions of an indwelling spirit, the same in kind and only differing in degree. So it is evident from this brief survey, that if any discriminations are to be made against the animal in respect to soul, such discriminations must be attributed to one, or the other of the two forms of Animism, which we shall now proceed to consider.

Ancient Animism, as we have seen in our first chapter, identifies the human and animal souls. But later on, the Greek philosophers came to the conclusion that instead of one soul that there were three; i.e. the vegetative, the sentient, and the rational. The Scholastics adopted this view, and even now hold that the human and animal souls are not the same in kind. Yet this was not quite so bad as Descartes and his followers, who made animals mere machines;
this Cartesian fallacy, however, was disposed of once for all in chapter VI.

Notwithstanding the innovations and refinements of the Greek philosophers and the Scholastics, and Descartes's denial, the ancient Animistic philosophy which affirmed the identity of the human and animal souls is now generally recognized as the most adequate explanation. Leibnitz's doctrine of Monads has confirmed the ancient Animistic principle by showing that the distinction between all souls is a mere question of degree. Monadology gave rise to the movement in favor of a universal and comparative psychology embracing both men and animals, and has left no way open, but to declare the soul of the animal to be like that of man; i.e., the same in kind, and differing only in degree.

The theory of Monads, its corollary—a universal and comparative Psychology, the principle of Directed Biological Evolution, the law of Continuity, and the unmistakable analogy between the mental constitution of the animal and that of man are the ground for our thesis that a consistent soul theory does not exclude the animal. All preliminary questions relevant to the issue have been discussed in detail in the preceding chapters, and we were forced to the admission of the existence of a human soul by the preponderance of unanswerable reason and testimony. Hence, if the existence of the human soul rests on secure ground, as we believe it does, then, on parity of reasoning, we may infer the animal soul.
Leibnitz's Monadology, as we have stated in chapter one, is the basis of universal and comparative psychology, both he and Lotze hold that the body in its real nature is an organized system of beings of like nature with the soul. Directed Biological Evolution traces the origin of plants and animals, to the same primitive organism. The Law of Continuity, according to the doctrine of Leibnitz, and the teachings of modern psychology admits of no break in the psychical chain, which links together the one-cell organism and the brain of the highest intellectual order.

If these propositions are true, on that ground, can we afford with any pretense of logical consistency, as Scholastics have attempted to do, that the sentient soul of the animal differs in kind from the rational soul of man? Even Albertus Magnus, although classed as a Scholastic, scoffed at such a notion. He held that the active intellect is a part of the soul; the principle that confers form and individuality. In this principle, he says: "are also contained the forces called by Aristotle nutrition, and sentiency, but these forces nutrition and sentiency are separated from the body, the same as rationality, and are, therefore, constituents parts of the immortal soul." #16.

This is our position, and it is on all-fours with Leibnitz, Directed Evolution, and Comparative Psychology, and it is sound doctrine that in dealing with the question of the soul, we cannot admit of any notion like a three ring-

#16, Alexander Bailey's Body and Mind, p. #104.
The mind or soul, whether of man, or an animal is an entity, or a self; and when we speak about sentiency, will, intellect, memory, or imagination, we are only making use of abstractions for the purpose of analysis.

Flotinus also says that we cannot dismember the soul in order to form varieties like the vegetative, the sentient, and the rational soul. Hence, we reject the Aristotelian, and the Scholastic doctrine, which holds that the soul of the animal differs in kind from the human soul. For, we accept, as the true theory, the doctrine of Albertus Magnus, Leibnitz, Lotze, and the dictum of Comparative psychology; all of these affirm that the human and animal soul are the same in kind and differ only in degree.

What are the reason given for making so flimsy a distinction? No language, they say, but they forget the natural language of emotions. So Descartes says, in respect to this defect, nothing but a machine would remain dumb so long. Dumbness, perhaps, is rather to be attributed to the fist of the Creator than to a deficiency of the soul, as it is probable that He foresaw the evil consequences of too much talking, and if not restricted, it would surely increase the animosities of His creatures, and whet their appetites for revenge.

A standard proof of the existence of the human soul is its capacity to cognize the universal. The good Scholastics said that this was adequate evidence of the soul's immateri-
ality and immortality. Now, meeting the Scholastics and Descartes on their own ground, we assert that the dog does form generic ideas as this is the only way of explaining the snobbish distinction which he invariably makes between well dressed persons, and persons whose clothes are shabby.

But we are not resting our case as to the degree of the power of animal cognition upon the dog's sagacity, alone. We have a more general and decisive argument. For, according to modern psychology, and the opinion of no high an authority as Darwin, himself, instinctive actions, hereafter, must be classed in a line with reasoned actions as it is admitted in respect to animals that their total reaction, although complex, is unitary, while the sense-impression is a manifold of sense stimuli affecting a manifold of sensory nerves, therefore, instinctive actions have turned out to be synthetic in nature. Hence the animal reasons, so the discrimination of the Scholastics is premature and illogical.

Another standard proof of the human soul is self-consciousness. It is pointed out that the soul reflecting, and the soul reflected upon is the same. It is at once both subject and object; but, it is also shown that no atom can act upon itself. In reply to this, we claim that there is empirical proof in our every day observation of animals that they, too experience states of self-consciousness. If this were not true, they would have no sense of guilt, but what is a more pitiable sight than the expression of a dog's remorse when caught in the act of killing sheep? In view
of the principles of Interaction and its related facts, we must acknowledge as the ancient Animist did that there is a relationship in kind existing between the human and animal souls, and that their differences are only those of degree.

In conclusion, we shall now see, whether our conception of the animal soul, is compatible with the second type of Animism, advanced by James and Bergson, which is known as the Theory of Transmission. #17, James says, "My thesis now is this: that when we think of the law that thought is a function of the brain, we are not required to think of productive function only; we are entitled also to consider permissive, or transmissive function." #18, Again, he says: Before consciousness can come, a certain degree of activity in movement must be reached. This requisite degree is called the threshold, but the height of the threshold varies under different circumstances; it may rise, or fall, when it falls as in a state of great lucidity, we grow conscious of things of which we should be unconscious at other times; when it rises as in drowsiness, consciousness sinks in amount. This rising and lowering of the psycho-physical threshold exactly conforms to our notion of permanent obstruction to the transmission of consciousness, which obstruction may, in our brains, grow alternately greater or less."

We have already stated that the theory makes the brain a transmissive instead of a productive organ, and it con-

#17, James's Human Immortality, p. #15, 1898.
#18, Idem. p. #24.
ceives consciousness existing independently of matter in a vast ocean of consciousness.

Now, we assert that this theory of Transmission, considered in connection with the principle of the rise and fall of the threshold of consciousness, is not only compatible with our thesis—that the animal and human souls are the same in kind, differing only in degree—but points out definitely, that the difference in degree is positively due only to the peculiarities of the organisms.

In support of this, we quote James own words: #19.

"We may regard all minds as connected in some immediate fashion which permits their reciprocal influence, and of the conjunction of their powers, or to put the notion in another way that all mind human, and infra human as well as super-human mind is one, and that our individual minds are but the partial manifestations of the one mind, conditioned by the peculiarities of our bodily organism."

On the face of the record, left by those good men, which we have been following quite diligently, we cannot help, but see in their thoughtful, and inspiring efforts to solve the problem of existence that for the most part, at least, they sincerely believed that the patient animal, in spirit, was closely related to man. And furthermore, the face of the record discloses the fact that when a high authority in the history of thought, denied that there was any analogy, or relation between the human and animal souls, #19, James's Variety of Religious Experiences, p. #405-
and held that all animals were mere machines, it was, afterwards, only a question of time that man, too, on the same parity of reasoning, in the judgment of many, became a machine. Therefore, it is not a fancy, taste, or grace, but a stern and immutable fact that no consistent soul-theory can safely preclude the animal. For according to the old proverb, no organism can emit hot and cold at the same time, or to use less figurative language, we might say of the souls of men and animals "together, they stand, and divided, they fall."
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