1952

Intellect and intuition in the philosophy of Henri Bergson

BOSTON UNIVERSITY
GRADUATE SCHOOL

Thesis

INTELLECT AND INTUITION
IN THE PHILOSOPHY OF HENRI BERGSON

by

RICHARD HAROLD SCHLAGEL
(B.S., Springfield College, 1949)

Submitted in partial fulfillment of the
requirements for the degree of
Master of Arts
1952

Approved
by

First Reader Richard M. Millard
Professor of Philosophy

Second Reader John H. Lavely
Professor of Philosophy

TABLE OF CONTENTS

TABLE OF CONTENTS

CHAPTER IV

INTRODUCTION

1. Purpose.

The purpose of this thesis is to present Henri Bergson's theory of knowledge. As one studies Bergson's philosophy he is constantly impressed with the sparkling originality of his thought, but nowhere is this more importantly illustrated than in his conviction that a "theory of knowledge" and a "theory of life" are inseparable. The great problems of philosophy can only be solved, he believed, by bringing together these two inquiries. To lay the foundation for such a synthesis was, in fact, the aim of his philosophy. It is the purpose of this thesis to seek out and examine whatever is fruitful and whatever is false in his attempt.

Since intuition and concepts constitute the elements of all our knowledge,[1] a theory of knowledge will consist in a determination of the extent and limits of intellection and intuition. This investigation will be primarily concerned, therefore, with Bergson's theory of the intellect and of intuition, and with the way in which they are related to his theory of life.

2. Method.

The method of this thesis is to follow the gradual devel-

---

1. See Kant, CPR, B75.

opment and systematic formulation of Bergson's philosophy with particular reference to a theory of knowledge. At first an historical rather than systematic approach was envisioned, with Bergson's three earlier books constituting the main subject matter. However, it soon became apparent that this was an arbitrary and artificial mode of approach: the subject matter itself rather than its chronology should dictate the method of procedure. Therefore, it was later decided to use two of Bergson's works as the foundation for the investigation of this thesis. These works are: Essai sur les données immédiates de la conscience (1907), English title, Creative Evolution. Matiére et mémoire, essai sur la relation du corps avec l'esprit (1896), English title, Matter and Memory, the book making up the original triad, has been carefully studied, but found to bear only incidentally on the subject at hand. The argument in Matter and Memory, consisting in a philosophical investigation of the inadequacy of psychological interpretations of memory, does not fit into the scope and aim of this thesis. However, the findings and conclusions Bergson arrives at as a result of this study will be included in the text whenever possible.

Bergson's last work, Les deux sources de la morale et de la religion (1935), English title, The Two Sources of Morality and Religion, was also read, but considered not relevant to the problem at hand, dealing mainly with religion and morality, rather than epistemology.

His two smaller works, however, are used extensively throughout this thesis. They are: Introduction à la métaphysique (1903), English title, An Introduction to Metaphysics, and a series of articles and lectures written and given in France and other countries between 1903 and 1923, published under the title, The Creative Mind. Two articles in the latter work entitled "Philosophical Intuition," and "The Perception of Change," as well as an autobiographical sketch of the development of his thought, have proven particularly helpful to the understanding of his philosophy.

Chapter I of this thesis is based primarily on Time and Free Will.[1] In this chapter Bergson's concept of consciousness is analyzed, and also his theory of intuition and duration. It was natural to begin with this, his first work, since it was through an investigation of consciousness and time that Bergson was led to his later philosophical considerations.

In Chapter II, Bergson's theory of evolution and its relation to a theory of knowledge is considered. The diverse tendencies of the evolutionary movement are followed to deter-

---

1. English translations have been used exclusively in this thesis. There is some disadvantage in this, of course, but since the writer's grasp of the French language is not free, it is better to rely on more careful translations than his own. In all cases authorized translations have been used, and in some works Bergson himself has revised the English, thereby decreasing the possibility of misinterpretation through translation.

mine the origin and nature of intuition and intellect.

Chapter III, the last chapter of exposition, deals with the metaphysical conclusions of Bergson's philosophy. In this chapter the relation of metaphysics to a theory of knowledge is stressed, with the interrelation of the two brought to light. This chapter is, logically, the climax of the thesis.

The last chapter, Chapter IV, contains a summary and critical evaluation of Bergson's philosophy, concentrating primarily on his theory of knowledge. However, since theory of knowledge, theory of evolution, and metaphysics are so extensively diffused and interrelated in Bergson's philosophy, it is impossible to touch on one without also coming in contact with the other. This chapter draws on the many expository and critical works on Bergson: _A Critical Exposition of Bergson's Philosophy_, by J. McKellar Stewart (1913); _Henri Bergson_, by Emil C. Wilm (1914); _Bergson and His Philosophy_, by J. Alexander Gunn (1920); _Bergson and Personal Realism_, by Ralph T. Flewelling (1920); and _Henri Bergson_, by Jacques Chevalier (1928).

3. Orientation.

Before turning to the main body of the thesis, an orientation to the development and aims of Bergson's philosophy might be helpful in understanding it. Since the purpose of this thesis is to present Henri Bergson's theory of knowledge, which, as we said, is especially significant in its relation to a theory of life, it is important to know just why Bergson considered this relation so important.

And in the introduction to The Creative Mind, Bergson himself tells us how he came to be interested in a theory of knowledge and a theory of life. What he first noticed about philosophy is that it "lacked precision." Its many systems are cut too wide for reality; they "could apply equally well to a world in which neither plants nor animals have existed, only men, and in which men could quite possibly do without eating and drinking...where everything might just as easily go backwards and be upside down."[1] Consequently, Bergson felt that self-contained systems are an "assemblage of conceptions" so adopted, and consequently so vast, that they might contain, aside from the real, "all that is possible and even impossible." And so he decided that the only explanation of phenomena that he would accept as satisfactory "is one which fits tightly to its object, with no space between them, no crevice in which any other explanation might equally well be lodged; one which fits the object only and to which alone the object lends itself."[2] He felt that scientific explanations were of such a kind, but that metaphysical explanations were not.

There was one metaphysical theory, however, which seemed to be an exception, and that was Spencer's theory of cosmic evolution. But when he began studying Spencer's philosophy he

---

1. Bergson, CM, 9. (Hereafter, all references will be to Bergson unless otherwise noted.)
2. CM, 9.

found certain weaknesses that led him to analyze the concept of time. And here, he says, a surprise awaited him: he was "very much struck to see how real time, which plays the leading part in any philosophy of evolution, eludes mathematical treatment."[1] The line measured in mathematics is immobile, time is mobility; the line is made, complete, while time is happening, and even more than that, "causes everything to happen."[2] The measuring of time never deals with time as duration; what is counted is only a certain number of extremities of intervals, or moments--in short, virtual halts in time. But this duration that eludes methematics, and also science, is, according to Bergson, what one "feels and lives." Suppose one tried to find out what it is--"how would duration appear to a consciousness which desired only to see it without measuring it, and grasp it without stopping it?"[3] This was the question that Bergson put to himself.

Such being the question, he delved deep into the domain of the inner life, which until then had held little interest for him. There he "quickly spotted the inadequacy of the associationist conception of the mind...the result of an artificial re-grouping of conscious life."[4] A long series of reflections and analyses led him to brush aside all such associationist conceptions, until finally, he believed he had found "pure, unadulterated inner continuity (duration), continuity

---

1. CM, 10.
2. CM, 11.
3. CM, 12.
4. CM, 12.

which was neither unity nor multiplicity, and which did not fit into any of our categories of thought."[1]

From the results of the above considerations Bergson was convinced that our intelligence "rules out real time," or "masks duration" because the goal of our understanding demands it. "Metaphysics dates from the days when Zeno of Elea pointed out the inherent contradictions of movement and change, as our intellect represents them."[2] It was because of these contradictions that metaphysics was led to seek the reality of things above time, beyond what moves and what changes, and consequently outside what our senses and consciousness perceive. "As a result it could be nothing but a more or less artificial arrangement of concepts, a hypothetical construction."[3] It claimed to go beyond experience, but in reality it was only able to "substitute for it a fixed extract desiccated and empty, a system of abstract general ideas, drawn from that very experience, or rather from its most superficial strata."[4] But Bergson suggests that if we could detach ourselves from this strata many of the "great insoluble problems" would remain attached to the outer shell. Metaphysics would then become experience itself; and duration would be "revealed as it really is,--increasing creation, the uninterrupted up-surge of novelty."[5]

Such conclusions as to the nature of duration, and the limitations of the intellect, led Bergson "to raise intuition

---

1. CM, 12.
2. CM, 16.
3. CM, 17.
4. CM, 17.
5. CM, 17.

to the level of a philosophical method."[1] "Such a method would not embrace in a single sweep the totality of things; but for each thing it would give an explanation which would fit it exactly, and it alone."[2]

But Bergson was not content to stop with just describing the method. He was also interested in seeing how the difference between intuition and intellect could be explained in terms of the evolution of life. He believed that the evolution of life, incomplete as it yet is, has already revealed how the intellect had been formed.[3] And because he believed that intellection and intuition are two methods of knowing which have been evolved in the course of evolution, he felt that the limit and extent of their function could only be correctly evaluated when they were considered in relation to the movement which produced them. This is the basis of his statement that "a <u>theory of knowledge</u> and a <u>theory of life</u> seem to us inseparable."[4] He believed that any "theory of life" which has not been accompanied by a criticism of knowledge has been obliged to represent life in the accepted categories of the understanding, thereby misinterpreting it. And on the other hand, a "theory of knowledge" which does not view the intellect as a product of the evolution of life, cannot teach us how the frames of knowledge have been originated or how they are constructed.[5] But together, "they may solve by a method more sure, brought

---

1. CM, 33.
2. CM, 35.
3. See CE, xix.
4. CE, xxiii.
5. See CE, xxiii, xxiv.

nearer to experience, the great problems that philosophy poses."[1]

We are thus fortunate in having so clear a description, by Bergson himself, of the development of his thought, of the kind of philosophy he hoped to establish, and of the method on which it is to be based.

1. CE, xxiv.

CHAPTER I

INTUITION AND DURATION

There has often occurred, early in the thought of certain great men, a particular insight so central to their thinking that all later development was a verification and systematization of this insight. Such an insight, Einstein, in his autobiographical notes,[1] says occurred to him at the age of sixteen when he had "already hit upon a paradox" that contained the germ of his special relativity theory. And it was also a paradox, though not a similar one, that led Bergson to his insight into what he considered to be the true nature of time. This insight--which he called the intuition of duration--was the core of Bergson's philosophy. This was his most original contribution and the one that has had the greatest influence on later thought.[2]

The purpose of this chapter will be to explain Bergson's method of intuition and the relation of intuition to time. Since Bergson conceived of intuition as the method by which one can appreciate real time, or duration, a study of intuition must precede that of duration. Then on the basis of this study a new conception of time and change will be advanced.

1. Bergson's Method of Intuition.

Bergson's philosophy is essentially a method.[3] It is a

1. Einstein, Art.(1949), 53.
2. See Goudge's Intro. to Bergson's ITM.
3. See Stewart, CEBP, Intro.

method whereby we may grasp internally and sympathetically the heart of reality. This method is called <u>intuition</u> and the term should be familiar through its historical usage by Plato, Spinoza, and Kant.[1] But it is Bergson's unique use of intuition that marks him an original thinker. His method is intended to invert the whole process of philosophizing. This can be illustrated best by contrasting his use of intuition with Plato's.

When one reads Plato's "theory of the line" he has the delightful sensation of being gently lifted up and carried through higher realms of existence. At each successive realm it is as if a veil hiding some aspect of reality were removed from our sight until finally all of reality becomes clear in one immediate vision. This ascent is away from the world of sense. In the lowest realm one sees in the dim light only the hazy images and shadows of things, so our thoughts are carried

---

1. This is not to imply, however, that all four methods of intuition are the same. Nevertheless, there is a common element in anyone's use of intuition: this is the immediacy and the non-deducibility of its content.

Bergson, Spinoza, and Plato would agree that through intuition we come into immediate contact with reality. Kant would assert, however, that our intuition never penetrates beyond the phenomenal world: we have no "metaphysical intuition."

Kant and Spinoza would agree that the contents of intuition either are, or can be made intellectual. Bergson, however, would deny that the contents of intuition can be reconstructed by the intellect--at least, not without altering and falsifying it.

Bergson's method of intuition differs from that of Plato, Schelling, and Schopenhauer in that theirs was an immediate search for the eternal and his is a way of finding "true duration."

Thus Bergson's method of intuition differs either in form or content from that of any other.

away by imagination. But as we are lifted higher the light becomes brighter and the objects themselves become visible. At first the very clarity of this world holds our minds in fixed belief. But as we pass on, our thoughts become detached and they begin to dwell on the moving harmony of the objects, until finally, our thinking passes from the objects to the geometrical order itself. In their winged flight our thoughts have freed themselves from all external attachment and are now ready to lift themselves up to the highest realm. Here there is no movement; all is an eternal calm. In one single intuition we grasp the fixed and eternal forms. All has become intelligible.

One could hardly remain unimpressed by such a vision, and, in fact, Bergson has not. But the vision of Plato only expresses half the truth. There is another half that Bergson wishes to stress.

Bergson sees the whole of ancient philosophy beginning with Plato and culminating in Plotinus as the development of one fundamental principle: "There is more in the immutable than in the moving, and we pass from the stable to the unstable by a mere diminution."[1] This, according to Bergson, was the great delusion of ancient thought. And since our senses reveal a changing world, thought turned away from sense per-

---

1. ITM, 53.

ception and

> the metaphysician worked therefore a priori on concepts already fixed in language, as if, descended from heaven, they revealed a supra-sensible reality to the mind. Thus was born the Platonic theory of ideas.[1]

Concepts which should have been used to extend and complete perception were made into a reality sufficient in themselves.

But it remained for Kant to show that these concepts, by themselves, cannot reveal metaphysical reality; only a superior intuition, that is, a perception of metaphysical reality itself would serve as the basis for a metaphysics. Only, having proved that intuition alone would be capable of giving us a metaphysics, Kant denied that such an intuition was possible.

> Since, however, such a type of intuition, intellectual intuition, forms no part whatever of our faculty of knowledge, it follows that the employment of the categories can never be extended further than to the objects of experience.[2]

But though knowledge of metaphysical reality is impossible, scientific knowledge is a fact and "the apodeictic certainty of all geometrical propositions"[3] led Kant to view science as a universal mathematic. This universal mathematic is what the world of Ideas becomes when we suppose that the Idea consists of a relation or a law and not of a separate immutable entity. So Kant, though denying the existence of a Platonic realm of forms, insists that our intellects are incapable of

---

1. CM, 53-54.
2. Kant, CPR, A252.
3. Kant, CPR, A24.

anything but Platonizing--that is, in determining all possible existence by the laws of thought.

> Briefly, the whole Critique of Pure Reason ends in establishing that Platonism, illegitimate if Ideas are things, becomes legitimate if Ideas are relations, and that the ready-made idea, once brought down in this way from heaven to earth, is in fact, as Plato held, the common basis alike of thought and of nature.[1]

For the ancient philosopher, therefore, the intelligible world was situated outside and above the one our senses perceive: our faculties of perception showed us only shadows projected in time and space by immutable and eternal Forms. Philosophy began, according to Bergson, on the road it has since travelled, the road leading to a "suprasensible" world: henceforth, one was to explain things with pure ideas.[2] It is true that for the moderns these essences are constitutive of sensible things in themselves; they are veritable substances, of which phenomena are only the caused appearances. But both the ancients and the moderns are agreed in desiring a substitution of the concept for the percept. They all appeal from the insufficiency of our senses to the faculties of the mind no longer perceptive; that is, to the functions of abstraction, generalization, and reasoning.

---

1. ITM, 57-58.
2. In The Quest for Certainty, Dewey maintains a similar position as to the original aims of philosophy: the road travelled by philosophy has been prejudiced by the "classical" search for "antecedent reality" (see QFC, 29-30).

But it is this very process of abstraction and conceptualizing that Bergson wishes to invert. It is this, according to Bergson, that has given rise to the conflict of systems. By this process we can never grasp reality in an "absolute" sense.[3] Our thoughts move around it and never enter in; they can only grasp the static, the spatial, the unchanging. But we shall see that reality for Bergson is qualitative, creative, and flowing. To experience reality we must descend from the realm of abstract concepts and re-enter the world of perceptual experience. "Conceiving is a makeshift when perception is not granted us, and reasoning is done in order to fill up the gaps of perception or to extend its scope."[2]

> Suppose that instead of trying to rise above our perception of things we were to plunge into it for the purpose of deepening and widening it. Suppose that we were to insert our will into it, and that this will, expanding, were to expand our vision of things. We should obtain this time a philosophy where nothing in the data of the senses or the consciousness would be sacrificed.[3]

In this way, Bergson hopes to grasp reality from within and to obtain a knowledge of things which is complete.

---

1. Bergson uses the term "absolute" rather ambiguously. In <u>An Introduction to Metaphysics</u> he speaks of an Absolute knowledge of things, meaning an "internal" or "sympathetic" grasp of the thing (see ITM, 21). In <u>Creative Evolution</u> he says: "In the absolute we live and move and have our being" (CE, 199). It is not clear just what he does mean by this, since the phrase only occurs once and without elaboration.
2. CM, 155.   3. CM, 158.

This is the purpose of intuition.

> By intuition is meant the kind of intellectual sympathy by which one places oneself within an object in order to coincide with what is unique in it and consequently inexpressible.[1]

This experience, when it has to do with material objects, is called exterior perception, and when it has to do with the mind, intuition.[2] Thus, intuition would not embrace in a single sweep the totality of things (as in the philosophy of Plato), but for each thing it would give an explanation which would fit it exactly, and it alone. The question is, then, do we have such an intuition?

2. Intuition of Duration.

There is one intuition at least which we all have, according to Bergson, and that is the inner awareness of our own personality in its flow through time--our self which endures. "We may sympathize intellectually with nothing else, but we certainly sympathize with our own selves."[3] What, then, do we find when we direct our attention inward to contemplate ourselves?

First, we perceive, as a "crust solidified on the surface,"[4] all the perceptions which come to us from the mate-

1. ITM, 23.
2. See CM, 57. Bergson is not consistent in this distinction, however. He also uses intuition as a more intimate or "absolute" kind of perception, meaning that the "internal" nature of the thing is sympathetically grasped by intuition. He likens intuition to aesthetic perception (see ITM, 32).
3. CE, 24.
4. ITM, 25.

rial world. "These perceptions are clear, distinct, juxtaposed or juxtaposable one with another: they tend to group themselves into objects."[1] Then there are the memories which more or less adhere to these perceptions and which serve to interpret them. These memories, detached, as it were, from the depth of our personalities, have been drawn to the surface by the perceptions which resemble them; they rest on the surface of our minds without being absolutely ourselves. Many float on the surface, "like dead leaves on the water of a pond." And lastly, we feel the stir of tendencies and motor habits--"a crowd of virtual actions, more or less firmly bound to these perceptions and memories."[2] All these clearly defined elements appear more distinct from us, the more distinct they are from each other. "Radiating, as they do, from within outwards, they form, collectively, the surface of a sphere which tends to grow larger and lose itself in the exterior world."[3] This is how our conscious experience becomes spatialized, by the natural detension or relaxation of consciousness. But, if we draw ourselves in from the periphery towards the center, if we search in the depth of our beings that which is most uniformly, most constantly, and most en-

1. ITM, 25.
2. ITM, 25.
3. ITM, 25.

duringly ourselves, we find, according to Bergson, something altogether different.

Beneath those "sharply cut crystals" and "frozen surface," we find a continuous flux which is not comparable to any other. "There is a succession of states, each of which announces that which follows and contains that which precedes it."[1] In reality, no one of them begins or ends, but all extend into each other. It is this inner flux that Bergson calls duration:

> Inner duration is the continuous life of a memory which prolongs the past into the present, the present either containing within it in a distinct form the ceaselessly growing image of the past, or, more probably, showing by its continual change of quality the heavier and still heavier load we drag behind us as we grow older. Without this survival of the past into the present there would be no duration, but only instantaneity.[2]

This duration is the form which the succession of our conscious states assumes when our ego lets itself live, when it refrains from separating its present state from its former states, but forms both the past and the present states into one organic whole--like the notes of a tune, melting into one another. In a word, pure duration is "but a succession of qualitative changes, which melt into and permeate one another, without any tendency to externalize themselves in relation to one another, without any affiliation with number."[3]

---

1. ITM, 25.
2. ITM, 40.
3. TFW, 104.

So beneath the crust of our outer consciousness we find deep within us a pure duration whose heterogeneous moments permeate one another; a duration whose states are not distinct, but melt into one another and form one organic whole: a duration that is continuous creative growth. It is a growing duration because our consciousness swells with all the past it carries with it. In Matter and Memory Bergson tries to prove that memory cannot be explained in terms of brain cells or the association of nerve processes, but is purely a function of spirit or consciousness.[1] It is the belief of Bergson that all of our past is retained in our pure spirituality and that our brain merely serves to attach our useful memories to our present conscious states. Thus our memory conveys something of the past into the present and our mental state, as it advances along the road of time, is continually swelling with the duration which it accumulates: "it goes on increasing---rolling upon itself, as a snowball on the snow."[2]

It is this inner duration that we reach by intuition:

> Intuition, bound up to a duration which is growth, perceives in it an uninterrupted continuity of unforeseeable novelty, it sees, it knows that the mind draws from itself more that it has, that spirituality consists in just that, and that reality, impregnated with spirit, is creation.[3]

---

1. See MM, 320.
2. CE, 2.
3. CM, 39.

This duration, then, is the reality reached by intuition. This is the other half of that truth which Plato neglected, and that Bergson wanted to stress. But here one may ask, What is the relation of this inner duration to our outer conscious states? How can there be an outer crust and an inner flux? Does there exist in the inner consciousness a self distinct from the one that is normally experiencd?

3. The Two Aspects of the Self.

The answer to these questions Bergson has carefully formulated. There is but one self, but there are two aspects of this self. Our conscious life displays these two aspects according as we perceive it directly or by refraction through space. And since direct perception, or intuition, has already been discussed, the other aspect will be considered.

It is found that "in proportion as we get away from the deeper strata of the self, our conscious states tend more and more to assume the form of a numerical multiplicity, and to spread out in a homogeneous space."[1] In doing this, our self comes in contact with the external world at its surface; our successive sensations, although dissolving into one another, retain something of the mutual externality which belong to their objective causes; and so our

---

1. TFW, 92.

superficial psychic life comes to be pictured as set out in a homogeneous medium. This homogeneous medium, which is space, is not derived from our sensations. Bergson agrees with Kant both "in endowing space with an existence independent of its content,"[1] and in denying it an independent reality. In the first chapter of Time and Free Will Bergson had endeavored to prove that sensations and psychic states are qualitative and not quantitative.[2] If this is true, then inextensive sensations cannot give rise to space merely by their coexistence: "there must be an act of the mind which takes them all at the same time and sets them in juxtaposition."[3] If we seek to characterize this act, we see that it consists essentially in the conception of an empty homogeneous medium. Space, for Bergson,

> is what enables us to distinguish a number of identical and simultaneous sensations from one another; it is thus a principle of differentiation other than that of qualitative differentiation, and consequently it is a reality with no quality.[4]

If someone suggests that simultaneous sensations are never identical, and that, because of the diversity of the organic elements which they affect, there are no two points

---

1. TFW, 92.
2. This is a highly technical problem which only the expert can competently evaluate. The argument is certainly consistent and seems to be supported by the theories of Lotze, Bain, and Wundt.
3. TFW, 94.
4. TFW, 95.

of a homogenous surface which make the same impression on the sight or the touch, then it is answered, that "just because we afterwards interpret this difference of quality in the sense of a difference of situation, it follows that we must have a clear idea of a homogeneous medium."[1] The more one insists on the difference between the impressions made on our retina by two points of a homogeneous surface, the more must one make room for the activity of the mind, which perceives under the form of extensive homogeneity what is given it as qualitative heterogeneity. Thus we have to do with two different kinds of reality, the one heterogeneous, that of sensible qualities, the other homogeneous, namely space. This latter, according to Bergson, enables us to use clean cut distinctions, to count, to abstract, and perhaps also to speak.

This can be especially illustrated in our idea of number. The idea of number always implies the simple intuition of parts absolutely alike, which parts must be in space. Number is a unity (2 4 8), the unification of which is due to a simple act of the mind. Whenever we think of these units separately, we look upon them as indivisible since we are intent upon their unity alone. But as soon as we put the number aside to pass to the next, we objectify it, and thereby make it into a thing, that is,

1. TFW, 95.

a multiplicity. This multiplicity is then subject to infinite divisibility. Now, the very possibility of dividing a unity into as many parts as we like, shows that we regard it as extended. Units are therefore parts of space, "and space is, accordingly, the material with which the mind builds up number, the medium in which the mind places it."[1]

Bergson finds other indications of this in the concept of the impenetrability of matter. We cannot imagine one body penetrating another without picturing pores or spaces by which this penetration is possible. But if impenetrability were really a quality of matter, then it should be no harder to imagine the penetrability of matter than the blending of colors or feelings. In reality, impentrability is not a physical but a logical necessity which attaches to the proposition: "Two bodies cannot occupy the same place at the same time." But does not this amount to recognizing that the very idea of number 2, or, more generally, of any number whatever, involves the idea of juxtaposition in space? If this is true, then "to assert the impenetrability of matter is simply to recognize the inter-connection between the notions of number and space; it is to state a property of number rather than of matter."[2]

But number is not the only notion that seems to be

1. TFW. 84.
2. TFW, 89.

based on the spatial form of our consciousness. Time, as ordinarily conceived, is also a homogeneous medium identical with space. For, with the ticking of a clock, or the numerical sounding of the bells we count successive discrete intervals and string them along a homogeneous line. Each is supposed to have its own separate beginning and ending. Duration, according to this view, is composed of homogeneous units set side by side. Time marches on according to a definite cadence, never changing; each successive step equals the one before. But what is space, but a homogeneous medium, each part of which can be excnanged with any other? But if homogeneity consists in the absence of every quality, it is hard to see how two forms of the homogeneous could be distinguished from one another. "If then, one of those two supposed forms of the homogeneous, namely time and space, is derived from the other, we can surmise a priori that the idea of space is the fundamental datum."[1]

And when we analyze our conscious states we find the same thing: we generally think of a homogeneous medium in which our conscious states are ranged alongside one another as in space, so as to form a discrete multiplicity. It is

1. TFW, 99.

this passage of conscious states that we ordinarily speak of as time. If time, as our reflective consciousness represents it, is a medium in which our conscious states form a discrete series capable of being counted, and if, as we have already seen, our conception of number ends in spreading out in space everything which can be directly counted, it is to be presumed that time, understood in the sense of a medium in which we make distinctions and count, is nothing but space. It is certain that time, as thus conceived, is not duration. According to this view, all our experience takes place at instants--instants that are "not spread" at all. These instants have the same relation to time that a point has to space. As a point has no magnitude, so an instant has no duration--it is succeeded by another instant, and that by another, and so on. The world at one instant would be completely wiped out by the world as it is at the next instant. There would be no connection between the two, no real duration; there would only be substitution of one instant for another. It is "this statement of time in terms of separate instants that Bergson calls a 'spatial statement of time'"[1]

The only conclusion, then, is that a spatial form is the fundamental characteristic of our superficial conscious states.[2] The contents of our consciousness are spread out

1. Mead, MTNC, 298.
2. This does not imply of course that our consciousness is itself spatial, but only that its contents take on a spatial form.

in space and take on a numerical multiplicity in a time that is, essentially, no different from space. It may be wondered why this point is labored since this is the common sense view supported by our daily experience. This is true, but Bergson wishes clearly to distinguish this outer spatialized aspect of our consciousness (or self, or ego), from the inner flow of true duration:

> We should therefore distinguish two forms of multiplicity, two very different ways of regarding duration, two aspects of conscious life, Below homogeneous duration, which is the extensive symbol of true duration, a close psychological analysis distinguishes a duration whose heterogeneous moments permeate one another: below the numerical multiplicity of conscious states, a qualitative multiplicity; below the self with well-defined states, a self in <u>which succeeding each other</u> means melting <u>into one another</u> another and forming an organic whole.[1]

Generally, we are content with the first form of the self i.e., with the shadow of the self projected into homogeneous space. This form of a homogeneous space is a step towards social life. It is through this form that we are able to picture an external world quite distinct from ourselves, and common to all conscious beings. Bergson believes that our tendency to form a clear picture of this externality of things and the homogeneity of their medium is the same as the impulse which leads us to live in common and to speak.

---

1. TFW, 128.

> In proportion as the conditions of social life are more completely realised, the current which carries our conscious states from within outward is strengthened; little by little these states are made into objects or things...an inner life with well distinguished moments and with clearly characterized states will answer better the requirements of social life.[1]

Because this self is so much better adapted to the requirements of social life in general and language in particular, consciousness prefers it, and gradually loses sight of the fundamental self. But it must always be remembered that there are not two distinct selves;

> it is the same self which perceives distinct states at first, and which, by afterwards concentrating its attention, will see these states melt into one another like the crystals of a snow-flake when touched for some time with the finger.[2]

Thus the nature of the two aspects of the self is clearly defined by Bergson. The fundamental characteristic of our superficial conscious states is that they tend to spread out in a form of homogeneous space. Each state appears as a separate snapshot, maintaining a more or less distinct frame from the next. Time is measured by counting the number of slides as they appear in consciousness.

But beneath this spatialized aspect of consciousness, there is found another aspect whose fundamental characteris-

---

1. TFW, 138-139.

tic is time. The time disclosed here, however, is not just a succession of (seemingly) separate states, but a time that is the very life of consciousness. In this aspect no spatialized states are found, but a continuous interpenetrating flow of heterogeneous kaleidoscopic sensations. It is not a consciousness pictured, but a consciousness felt. As such, each feeling merges into the next, tinging that with the color of its past sensation. Actually, there are no really past sensations, since each sensation blends into and is carried along by the future stream of feeling.

This aspect of consciousness is a continual flow whose underlying current is time. It is the private sentient basis of our spatially socialized consciousness. From this amorphous base of sense feeling a superficial consciousness arises in which these sensations are crystallized into patterns of objects. It is these patterns of objects, when such patterns are not the result of an arbitrary subjective order, that we call the outer world. It is due to the stability and permanence of this outer world that we are able to live a social life. If there were not this universal and abiding element in our conscious experience there could be no common basis for a community of experience or a universe of discourse. All would be in such a flux that no knowledge would be possible. Since man would be an integral part of this flux, his knowledge would be changing with every passing moment, and all knowledge would be relative to the particular position and time of the individual within this flux. It is the awareness of this aspect of the Heraclitean view of reality as continual flux, that led Protagoras to his "man is the measure" theory. For if the world is in a continual flux, if man could never have two similar experiences, just as he cannot "step twice in the same rivers," then indeed, each man would be the measure of all things: "of existing things that they are, and of non-existing things that they are not."

But here there arises the question: How is our consciousness related to the outer world in which we see both permanence and change? What is to be considered the more fundamental, the changing--which is the more fundamental aspect of our self--or the permanent--which is more characteristic of our superficial conscious states?

4. The Perception of Change and Mobility.

Thus the problem of the nature of change and mobility has arisen--though not for the first time in history. According to Bergson, "metaphysics, as a matter of fact, was born of the arguments of Zeno of Elea on the subject of change and movement."[1] It was Zeno who, by drawing attention to the absurdity of what he called movement and change, led the philosophers--Plato first and foremost as we have seen--to seek the true and coherent reality above the changing, in a realm of immutable eternal Forms. And Kant, believing that our senses and consciousness are exerted in a phenomenal time, was led to believe that a metaphysics could be cnnstituted only through a superior intuition--an intuition which we do not have.

Why did Kant believe such a metaphysical intuition impossible? Precisely because he pictured a vision of reality that Plato and Plotinus had imagined, as all those who have appealed to metaphysical intuition have imagined it. They all believed in a faculty of knowing which would differ from consciousness as well as from the senses, which would even be oriented in the opposite direction. They believed this because they imagined that our senses and consciousness, as they function in every-day life, enable us to grasp movement directly. They believed that we actually perceive, by our senses and consciousness, the change that takes place in things and in ourselves. And since the usual reflection on our perception of change results in insoluble difficulties, they concluded that contradiction was inherent in change itself and that in order to avoid this contradiction one had

---

1. CM, 164-165.

to get out of the sphere of change and lift oneself above Time.[1] Such is the position taken by the metaphysician as well as by those who, along with Kant, deny the possibility of metaphysics.[2]

But Bergson would like to prove that what Zeno first, and then metaphysicians in general, took for movement and change was really neither one: "that of change they retained what does not change, and of movement what does not move;"[3] that what they took for an immediate and complete perception of movement and change was in reality "a crystallization of this perception, a solidification with an eye to practice."[4]

> In order to avoid such contradictions as those which Zeno pointed out and to separate our everyday knowledge from the relativity to which Kant considered it condemned, we should not have to get outside of time (we are already outside of it), we should not have to free ourselves of change (we are already only too free of it); on the contrary, what we should have to do is to grasp change and duration in their original mobility.[5]

Thus, according to Bergson, in order to understand mobility and change, we must return to the direct perception of change and mobility: "we shall think of all change, all movement, as being absolutely indivisible."[6] The paradoxes of Zeno would never have occurred if movement had been taken

---

1. See Bradley, AR, V, for a modern exposition of this view.
2. See CM, 165-166.
3. CM, 166.
4. CM, 166.
5. CM, 167.
6. CM, 168.

as continuous, and not as a series of divisible acts. Achilles would be sentenced to an eternal pursuit of the tortoise, if left to the judgment of ordinary speculation, when everyone knows, as a point of fact, that Achilles would easily overtake and pass the tortoise. Why this discrepancy between speculation and matter of fact? The reason, according to Bergson, is that the movement of Achilles is one continuous act, not a separate series of acts cutting in half the distance between him and the tortoise. As continuous, movement can never be juxtaposed on the immobile. It is this attempt that led to Zeno's paradoxes.[1] Because a movement generally begins and ends at a definite point, and because the distance travelled can be represented by a line, this is not to say that the trajectory itself is the movement. Such a line is infinitely divisible, but the movement is not.

The same thing is encountered when the passage of an object is observed. There is a tendency to fix attention on different positions along the passage, unconsciously reducing the passage to a succession of positions. But how could an object be in one position and still be mobile? How could something moving coincide with something not moving? The answer Bergson gives is that it could not. It "passes through," or in other terms it "<u>could be there</u>,"

---

1. CM, 171.

but this possibility would only be fulfilled if it stopped; but if it stopped, then it would no longer be mobile.

The Eleatics tried to solve such enigmas by reducing all change to mere illusion. But Bergson takes a Heraclitian view and states that

> movement is reality itself, and what we call immobility is a certain state of things analogous to that produced when two trains move at the same speed, in the same direction, on parallel tracks.[1]

A traveller on such a train would believe the two trains to be immobile, when actually they might be moving at a tremendous speed. Though a situation of this kind is exceptional, Bergson believes our whole view of the mobile and immobile is of such a nature. "Immobility being the prerequisite of our action, we set it up as a reality, we make of it an absolute, and we see in movement something which is superimposed."[2] But movement for Bergson, "if not everything, is nothing."[3] If we begin with the immobile, then we can never get the mobile.

And the conclusion is not only true for movement, but is also true for change. All change for Bergson is an indivisible change. For example, let us take an object that changes color. Here one would suppose that the change consists in a series of shades which do not change them-

1. CM, 169.
2. CM, 170.
3. CM, 171.

selves, but which constitute the change. Yet a color, if it has any objective existence at all, "is an infinitely rapid oscillation," which is change. And even the

> perception we have of it, to the extent that it is subjective, is only an isolated, abstract aspect of the general state of our person, and this state as a whole is constantly changing and causing this so-called invariable perception to participate in its change.[1]

Thus, color outside of us is mobility itself, and, as was learned in the last section of this chapter, the affective aspect of our consciousness is also continuous mobility. So the conclusion Bergson arrives at is that

> the whole mechanism of our perception of things...has been regulated in such a way as to bring about, between the external and the internal mobility, a situation comparable to that of our two trains.[2]

When two changes, that of the object and that of the subject, take place under particular conditions, they produce the particular appearance which Bergson calls a "state." Once in possession of "states," our mind recomposes change with them. Thus change, broken up into states, enables us to act upon things, and so we become more interested in the things than the change, and substitute the former for the latter. But this substitution, Bergson believes, is the cause of our insoluble metaphysical problems.

---

1. CM, 172.
2. CM, 172.

Another point that Bergson wishes to establish in relation to change, is "that there is underneath the changing, no thing which changes: change has no need of support."[1] Change is composed of movements, but not of an inert or invariable core which supports the movement: "movement does not imply a mobile."[2]

This fact is difficult to accept, Bergson believes, because our sight, the sense 'par excellence', has already developed the habit of separating and selecting the relatively invariable objects from our visual field. These objects of our attention or action are then believed to change place without changing form, and movement is superadded to them as an accident. Change is made the result of an external force rather than an alteration of the thing itself. Thus the sense of sight is an "advance-guard" for the sense of touch: it prepares our action upon the external world."[3]

But Bergson suggests that if we appeal to the sense of hearing we may have less difficulty in perceiving movement and change as independent realities.

> Let us listen to a melody, allowing ourselves to be lulled by it: do we not have the clear perception of a movement which is not attached to a mobile, of a change without anything changing?[4]

---

1. CM, 173.
2. CM, 173.
3. CM, 174.
4. CM, 174.

Isn't this change enough: is it not the thing-in-itself? Could one divide it up by a series of rests or transform it into a series of staccato's and still retain the flow of the melody? We have, no doubt, a tendency to divide and picture it as a juxtaposition of distinct notes, instead of an uninterrupted continuity of melody. But isn't this because we are thinking of the notes rather than listening to the music, or picturing a keyboard on which someone is playing? Bergson believes that if we did not dwell on such spatial images, pure change would remain, "sufficient unto itself, in no way divided, in no way attached to a 'thing' which changes."[1]

But even in our sense of sight, when we concentrate our attention upon it, we perceive that movement does not demand a vehicle nor change a substance. "A suggestion of this vision of material things already comes to us from physical science."[2] The more physics progresses the more it resolves matter into events moving through space or movements dashing back and forth in a constant vibration so that mobility is reality itself. All that is left of the immobile is a visual image, which is believed to be caused by a series of extremely rapid vibrations. The alleged movement of <u>things</u> is in reality only a movement of <u>movements</u>.

---

1. CM, 174. 2. CM, 175.

And a glance into the domain of our inner life reveals the same thing. There are no series of distinct psychological states and no substantial ego which somehow supports them:

> There is simply the continuous melody of our inner life,--a melody which is going on and will go on, indivisible, from the beginning to the end of our conscious existence. Our personality is precisely that.[1]

And so once again we are brought back to true duration: "this indivisible continuity of change is precisely what constitutes true duration."[2] This duration is what has always been called time, but it is time experienced as indivisible. There is a succession to time, but no distinction of before and after. It is like a melody which is the purest impression of succession that we could possibly have. It is the very continuity of the melody and the impossibility of breaking it up that constitutes its real duration.

5. Summary and Conclusion.

Thus this chapter is brought to a conclusion. In following Bergson's argument it has been found that whether it is a question of the internal or the external, of ourselves or of things, reality is mobility itself. It is this reality of pure duration that is reached primarily by

---

1. CM, 176. 2. CM, 176.

intuition. It is through the experience of our own inner duration and then through the perception of outer change and movement that we come to realize that time itself, <u>is the reality of the universe</u>. The world exists in, and has its being from, time. This unsubstantial, abstract, unpictureable concept of time is, indeed, hard to grasp by the understanding, but seems to be a concept forced on us by philosophers like Bergson, Alexander, and Whitehead (perhaps James and Dewey), as well as by the findings of contemporary science.

> What has vanished from the field of ultimate scientific conceptions is the notion of vacuous material existence with passive endurance, with primary individual attributes, and with accidental adventures. Some features of the physical world can be expressed in that way. But the concept is useless as an ultimate notion in science, and in cosmology.[1]

The discrete solid particles of Newton's day have been reduced to molecules, then atoms, then electrons, then energy units; but even energy has too substantial a connotation. Now the term used is fields of force.[2] This activity has a structure, but the structure seems to be the law of the activity. Also the theory of an expanding universe would seem to support Bergson's theory of time, as the discovery that mass is a function of motion is consistent with his theory of motion.

We must, therefore, to think time and movement, brush

1. Whitehead, PR, 471.

2. Einstein and Infeld, TEP, Chp. III.

aside all such notions as substance, matter, immobility, etc. These are merely forms in which our superficial consciousness constructs a world setting for social activity. But though in this way we can <u>think</u> time and change, Bergson is convinced that we can only <u>experience</u> the true duration of change by either inner or outer perception. We experience it inwardly as conscious duration, and outwardly as continuous change.

CHAPTER II

EVOLUTION AND THE THEORY OF KNOWLEDGE

1. Introduction.

In the last chapter Bergson's method of intuition was described. It was found that intuition for Bergson means placing oneself sympathetically within the thing to be known: it is knowledge by sympathetic insight rather than knowledge by abstraction, conceptualization, or reflection. The full implication of this method of knowing will be explored. First, however, the nature of the reality revealed through intuition will be considered.

In considering the use of intuition, it was found that one thing at least is grasped intuitively, and that is our own selves. But the self revealed through intuition is not the self of our discrete, static, homogeneous conscious states. When we draw ourselves inward and let our Ego dissolve in the tempo of our conscious life, we find a consciousness that is continual, creative, qualitative growth. It is this inner life of our consciousness that Bergson calls duration. This duration "is the continuous progress of the past which gnaws into the future and swells as it advances."[1] This is the reality grasped by intuition

1. CE, 4.

And outer perception too, it was found, introduces a reality of duration. In the perception of outer movement or change, the movement is perceived as a single, continuous, completed act. In such perception the paradoxes which are encountered in trying to reconstruct change or movement conceptually are avoided. And while traditional philosophy has been keenly aware of the paradoxes, its conclusion has generally been the opposite of that of Bergson.[1] Whereas Bergson accepts the movement as the real and rejects the conceptual account, the traditional view has been to trust the conceptual process and condemn as illusory (Parmenides) or minimal reality (Plato) the process of change itself. This is Bergson's "Copernican Revolution" in philosophy.

Bergson points out that we must wait for sugar to dissolve or ink to dry--the physical process thus matching the duration of our own conscious impatience. "This little fact," says Bergson, "is big with meaning."[2] For Bergson it signifies that the universe as a whole is an enduring process. Only when such processes are isolated, he believes, can they be treated as unaffected by time. Only then can one proceed as if an experiment could be repeated indefinitely without any qualitative change.

---

1. Heraclitus and Hegel are notable exceptions.
2. CE, 9.

But when attention is expanded from the isolated unite to the universe as a whole, such phenomena as geological changes, creation of nebular systems, and even evidence of an expanding universe are found. A view of these phenomena must assume that time makes a real difference. If these views are true, then the universe must endure, and once again this duration "is the continued progress of the past which grows into the future and swells as it advances."

So far, however, only the duration of consciousness and physical change have been considered. What can be said of the biological world, the world of living, growing, evolving organisms? Do the lives of these organisms also endure? What is the nature of the evolutionary process? Does that too resemble physical and conscious duration?

The purpose of this Chapter, therefore, will be to see in what way, if any, the evolution of life can also be considered a process of duration. But we shall be concerned with more than the duration of life; an attempt will also be made to determine what explanation best fits the transformation of life; e.g., mechanism or finalism. And finally, the main tendencies taken by the life force in its gradual transformation will be followed, with particular emphasis on the relation of evolution to a theory of knowledge.

2. Organized Bodies and Real Duration.

When it comes to demonstrating the duration of life, far less difficulty should be had than in representing either physical or conscious duration. It is a fact forced upon all of us, because it is a fact lived rather than observed, that our bodies and the bodies of other organisms go through a continual process of change. Each of us grows older with every breath, every movement, every moment of life. To be born, to grow old, and to die is the brief history of every organism.

But what does growing old mean but that time is gradually, but continually, leaving its mark on the organism. The process of anabolism and catabolism is incessant, but a stage is apparently reached when the building up process falls behind the tearing down. The cells of the body age and wastes accumulate while reconstruction lags behind. Retention of the past, continual change, incessant growth,--these seem to be the characteristics of the living organism. And this again is what is meant by duration. So, "like the universe as a whole, like each conscious being taken separately, the organism which lives is a thing which endures."[1]

1. CE, 15.

But how can this life, this duration of the organism be represented? It is found that whether we consider the most complex organism, the body of man, or the simplest one-celled amoeba, the process of life is the same. It is the same impetus which causes man to develop, to grow larger, and to age, that within the tiniest, humblest organism also causes these changes. "Life is like a current passing from germ to germ through the medium of a developed organism."[1] So the duration of life is not just continuous within the organism itself, but is continuous throughout the organic world.

This is especially represented in the genetic theory of Weismann, called the "continuity of the germ plasm." According to this view the stream of life is passed on through the germinal cells alone--the somatic or body cells merely providing a temporary environment and a means of transmission for the germinal cells.[2] Life guarantees its own continuation and evolution through the diversity inherent in its nature and the biological urge to reproduce. And though this theory in its extreme form,[3] as advocating an exclusive separation of the interacting influences of somatic and germinal cells is probably false, there seems little doubt that the means of germinal reproduction is limited to a few cells, at

---

1. CE, 27.
2. See CE, 26.
3. See Patrick, ITP, 138-139.

least in the higher organisms.

> It is as if the organism itself were only an excresence, a bud caused to sprout by the former germ endeavoring to continue itself in a new germ. The essential thing is the continuous progress indefinitely pursued, an invisible progress, on which each visible organism rides during the short interval of time given it to live.[1]

And the more life is pictured as a living current or a stream of vitality,

> the more we see that organic evolution resembles the evolution of a consciousness, in which the past presses against the present and causes the upspringing of a new form of consciousness, incommensurable with its antecedents.[2]

Bergson again asserts that the difficulty in picturing life in this manner is due to the attempt to conceptualize the process. But if we think of some of our own organic urges and the way they press against our consciousness we can sympathize momentarily with the life force itself. And this force, like the flow of consciousness, is also creative. From past observations one could not predict the exact emergence of new biological adaptations any more than the conscious response of man to his environment can be exactly predicted. In both cases the adaptations vary with the experience of the past which is carried into the present. "At every instant, then, evolu-

1. CE, 27.
2. CE, 27.

tion must admit of a psychological interpretation which is, from our point of view, the best interpretation."[1]

3. Radical Mechanism and Radical Finalism.

There are two ways by which the intellect tries to explain away this creativity of life, neither of which is acceptable to Bergson. The first is "radical mechanism," and the second is "radical finalism." The intellect feels impelled to such explanations because if it admits to the continual emergence of unforseeable novelty, then it admits that as an instrument of utility it is only adequate to the past, but not the future. The novelty of life, as of consciousness, escapes the forms and categories of our thought. And again, it is the reality of time as duration which makes this difference.

When one applies the mechanistic interpretation to life, what are the implications? In truth, "radical mechanism implies a metaphysic in which the apparent duration of things expresses merely the infirmity of a mind that cannot know everything at once."[2] It implies that all the potential <u>exists at present</u> in the actual so that a mind profound enough could deduce from what now exists all that could or will exist. But Bergson denies this. <u>The novelty of evolution is one which</u>

---

1. CE, 51.
2. CE, 39.

<u>transcends the profundity of intellect</u>.

This mechanistic view also implies that the gears of the universe could be shifted into reverse without any opposition at all. For if all that is possible exists now in the actual, then any change is merely a rearranging of parts. On this view time really makes no great difference, "for time is here deprived of efficacy and if it <u>does</u> nothing, it <u>is</u> nothing."[1] But again this is the view that Bergson has all along been fighting. Duration is like a great wave sweeping everything before it, against which nothing could possibly remain immutable. Nor could we push back time any more than we can find an elixir of youth. Time "is the very 'stuff' of life."[2]

But turning from the mechanistic view to radical finalism, just as unacceptable an account is found, and for the same reason. "The doctrine of teleology, in its extreme form...implies that things and beings merely realize a programme previously arranged."[3] According to this view the possible does not exist in the actual, as in mechanism, but in the foreseeable. The possible would exist as actual in the mind of the divine planner. But again this is the view Bergson denies. Either there is novelty or there is mechanism. At best, finalism is a kind of protracted mechanism. Again all is known to start with, but the period in which

---

1. CE, 39.
2. Stewart, CEBP, 45.
3. CE, 39.

the process is worked out is merely extended. Mechanism with intention would be a compressed finalism. But in both cases "if there is nothing unforeseen, no invention or creation in the universe, time is useless."[1]

But of the two views--radical mechanism and radical finalism--the latter is more acceptable to Bergson. The first represents a "block-universe,"[2] but the latter admits of as "many inflections as we like."

> The mechanistic philosophy is to be taken or left; it must be left if the least grain of dust, by straying from the path foreseen by mechanics, should show the slightest trace of spontaneity.[3]

But Bergson is of the opinion that the doctrine of final causes "will never definitively be refuted."[4] If one recognizes intelligible sequence in the universe, and yet rejects mechanism, then one is bound to accept some kind of finalism. What is important, therefore, is the kind of finalism one accepts.

4. The Finalistic View of Bergson.

The trouble with those who advocate radical finalism, according to Bergson, is that they place their emphasis on the wrong end of the process. Looking back over the evolutionary process and seeing how each adaptation (in those or-

---

1. CE, 39.
2. Borrowing a phrase from William James.
3. CE, 40.
4. CE, 40.

ganisms that have survived) seems naturally and chronologically to follow from its more primitive predecessor, it is natural to think that they are implements of a preconceived plan. This way of thinking is again a prejudice of our intellect.[1] Since people use their intellects primarily to utilize their environment according to preconceived ideas, it is an easy matter for the intellect to find an analogy between its own purposeful activity and that of a life force which seems also to reach certain ideal goals. These goals, it is said, must be the fulfillment of some preconceived plan.

But Bergson rejects this intellectualized view of evolution. Such a view, as already pointed out, eliminates any novelty or creation from life. It also overlooks all the waste and failure of much of the evolutionary process. All those abortive and regressive adaptations and tendencies of life are left unaccounted for. There is too much struggle, too much waste, too much trail and error, too much that is hit or miss about the evolution of life to be the fulfillment of a perfectly conceived plan. So instead of emphasizing the resultant ends of evolution, the origin should be stressed. Here Bergson starts with the idea of an "original impetus of life" that passes from generation to generation through the medium of germinal cells. No

---

1. CE, 44.

organism is a goal or end in itself, but only a bridge to future organisms.

Thus the organized world is a harmony, but it is a harmony left behind rather than a harmony made. This harmony is far from being perfect, but admits of much discord "because each species, each individual even, retains only a certain impetus from the universal vital impulsion and tends to use this energy in its own interest."[1] It is this individual use of the common impetus that constitutes adaptation according to Bergson.[2] And since each organism retains something of the original impulsion, this explains the complementary developments of life, even in dissimilar situations, while still allowing for the divergent tendencies of life.

When one looks back over the road, or roads, that the evolution of life has taken, it certainly appears as if the journey were mapped out in advance. Since some of the adaptations are favored and continued, it appears as if life has taken a linear development. But in reality it is not known how many divergent tendencies, how many blind alleys, how many generations it took to produce a single line of development. And again, turning to a forward rather than a backward view of evolution, who would be so bold as to predict what new forms of life, or what new tendencies of

---

1. CE, 50.
2. See CE, 50.

development will be manifested in the future. That life will continue to evolve seems almost a necessity, but the direction and kind of evolvement is as unknown as the nature of creation itself.

Thus the conclusion Bergson arrives at is that evolution is the result "of an original impetus of life, passing from one generation of germs to the following generation of germs through the developed organisms which bridge the interval between."[1]

> This impetus, sustained right along the lines of evolution among which it gets divided, is the fundamental cause of variations, at least of those that are regularly passed on, that accumulate and create new species.[2]

Those species which have diverged from a common stock tend to accentuate their divergence as they progress in their evolution, and yet, in certain definite points, they may evolve identically. This is especially illustrated in the formation of the eye in the molluscs and vertebrates.[3] Here, along different lines of development and under different circumstances, there is formed the different stages in the progressive development of the complex organ of the eye. And though the difference between the stages is great, yet the continuity can be detected, and the function of light sensitivity is fundamentally the same.

---

1. CE, 87.
2. CE, 87.
3. See CE, 88-90.

> Vision will be found, therefore, in different degrees in the most diverse animals, and it will appear in the same complexity of structure wherever it has reached the same degree of intensity.[1]

The analysis of the comparative morphology of the eye also provides Bergson with a biologically empirical refutation of mechanism. The principle of mechanism is that 'the same causes produce the same effect,' but the formation of the eye in the molluscs and vertebrates illustrates that life may manufacture similar organs by unlike means and along divergent lines of evolution.[2] Life does not proceed by the association and addition of elements, whether by "insensible variations" as the neo-Darwinians propose, or by sudden "accidental variations" as the neo-Lamarckians suggest. In either case

> some good genius must be appealed to...in order to preserve and accumulate these variations...or to obtain the convergence of simultaneous changes... to be assured of the continuity of direction of successive variations.[3]

How, then, is the parallel development of the same complex structures on independent lines of evolution to be explained, if not by the mere accumulation of accidental variations? According to Bergson, this can only be done by comparing the process "by which nature constructs an eye to the simple act by which we raise the hand."[4] Only, he

1. CE, 96.
2. See CE, 54-55.
3. CE, 68-69.
4. CE, 94.

suggests, instead of imagining the hand moving in air, let us suppose the hand passes through something with more resistance, such as iron filings or sand.[1] If we pass our hand into different piles of sand, we get the same imprint, not because the sand is the same, but because the impetus is the same. At whatever point we stop our hand, the arrangement of the sand takes an automatic and instantaneous pattern--the pattern being similar in different impulsions if the point reached is the same.

Now if we further imagine, with Bergson, that the hand and arm is invisible, we are tempted to suggest either that the imprint is caused by forces within the grains of sand themselves--a mechanistic explanation--or by the arrangement of each individual grain of sand according to some preconceived plan--a radically finalistic view. But in neither case is this true. The arrangement of the grains of sand, as well as the form of the imprint, is due to one indivisible act, that of the impulsion of the hand. The arrangement of the sand is simultaneously coordinated with the effort of the hand. But the arrangement is due to the effort, not the effort to the arrangement.

And such is the case with vision and its organ, or life and its organisms. "Life is, more than anything else,

---

1. See CE, 94.

a tendency to act on inert matter,"[1] and the form that the matter takes depends upon the kind of impetus life effects. Thus from an analysis of the structure of organisms themselves we cannot predict finally the nature of evolving organisms. To know this we would have to know more of the nature of the original impetus--the life force itself. But this has so far remained the invisible hand of life--the force that causes cells to divide and yet to maintain a functional harmony. And also the force that causes to develop from one single fertilized egg, the zygote, all the many differentiated cells of the body, from an osteocyte to a pyramidal cell: and again, the force that causes some cells to develop rapidly, retarding others, while waiting for years to activate still others. We hope some day to know what this force is, but as yet, as Bergson suggests, it remains invisible. And perhaps, as Bergson further suggests, it can never be found in an analysis of the effect, or forms of life, but only in the cause itself. If life does transcend mechanism, then the cause will never be fully discivered in the effect--there will be more in the effect than was previously in the cause.

But whatever the final judgment on this point may be, three conclusions from Bergson's analysis of the evolution of life can be asserted: (1) that life has evolved from a

1. CE, 96.

common impetus;[1] (2) that life progresses and endures in time;[2] (3) that life does not progress by a mechanical or planned association and division of an original impetus.[3] The remaining part of this Chapter will be concerned with how this dissociation occurs, and the results of this division of life.

5. The Divergent Directions of the Evolution of Life.

In the beginning, according to Bergson, there was matter and there was life. Life was the élan vital, the creative energy; matter was the inert, the unorganized, the resisting fact[4] of reality. Before the potentiality of life the portals of the future remained wide open, though it was a future destined to be filled with struggle, pain, and conflict--but also conquest. The resistance of matter had to be won over by the vitality of life. One finds in Bergson's account of evolution all the "seriousness, the suffering, the patience, the labor"of Hegel's negativität? The negative of life was matter but it was also the means (as the negativität in Hegel) by which life was to unfold itself.

Life began its conquest over matter "by dint of humility, by making itself very small and very insinuating, bending to physical and chemical forces,"[5] and then in turn using these

1. See CE, 87.
2. See CE, 51.
3. See CE, 89.
4. We shall call matter a "fact" now; but in the next chapter its exact nature will be determined.
5. CE, 98.

forces to its own end. The original bent of life was not in any single direction, but took the form of a sheaf that divided and diverged as it grew. In Bergson's own vivid language, it proceeded like a shell, "which suddenly bursts into fragments, which fragments, being themselves shells, burst in their turn into fragments destined to burst again, and so on for a time incommensurably long."[1] And just as the particular way the shell bursts depends upon the explosive force of the powder and the resistance of the metal, so the breaking up of the vital impetus depends upon two causes: "the resistance life meets from inert matter, and the explosive force--due to an unstable balance of tendencies--which life bears within itself."[2]

The force of life, therefore, is due to an unstable balance of tendencies which becomes divided when life encounters the resistance of matter. These tendencies, broken up and segmentalized, live on to further their own growth and development. Some are able to adapt to the conditions of physical reality, and others die in the attempt. In each generation which survives, there is passed on the inheritance of the past which is utilized in a creative response to the present. As each person im interaction with his environment develops his own personality, so does each organism develop its individuality in its struggle through

---

1. CE, 98.
2. CE, 98.

life.

The first problem of life in its insinuation into matter was how to utilize the preexistent energy it found at its disposal. The source of this energy is the sun; hence the life force had to find a way of storing up this energy in quantities that could be drawn upon at intervals. This was first accomplished by nitrogen-fixing organisms. In this primitive stage the animate forms were of extreme simplicity:

> they were probably tiny masses of scarcely differentiated protoplasm, outwardly resembling the amoeba observable today, but possessed of the tremendous internal push that was to raise them even to the highest forms of life.[1]

These first organisms oscillated between plant and animal but contained the tendencies which were to send them in divergent directions: some to remain specialized microbes, some to become plants, and some to develop into animals.

The method of procuring the carbon and nitrogen so vital to life seems to have facilitated the divergence that ultimately resulted. Along one tendency of life, the vegetative, the process of direct synthesis of food was emphasized, and since this synthetic process could be accomplished with nitrogen and carbon found close at hand, the plant could dispense with mobility and become an independent factory, fixed and self-sufficient.

---

1. CE, 99.

On the other hand, another tendency of life seemed to emphasize movement rather than self-sufficiency. And as the power of movement was developed the original capacity of direct synthesis of food was gradually lost. Thus the early animal forms found themselves free to move, but in gaining this power they were left dependent upon plants for their subsistence. This dependence added further impetus to the tendency toward mobility since the animal had to go in search of its food. And while the vegetable cell surrounded itself with a protective membrane of cellulose which further condemned it to immobility, the animal organism developed specialized cells of mobility and sensation and a nervous system to coordinate movement with sensation.[1]

This development within the animal of a wider range of movement and more specialized centers of irritability was also accompanied by a tendency toward greater consciousness. The plant too is capable of irritability as shown by its turning toward the sun and by the growth of its roots toward areas of moisture, but this sensibility of the plant is unconscious rather than conscious.[2] In the animal, however, we can easily follow the growth from unconscious irritability to a more acute conscious awareness: from diffuse irritability, to specialized organs of sensation and feeling.[3]

---

1. See CE, 108.
2. See CE, 111.
3. See CE, 112.

It may be said, therefore, that life has evolved along two main directions as manifested in the plant and animal. In the plant life has reached a certain degree of self-sufficiency, but at the cost of further development. The animal, outdistancing the plant in its development, depends upon the plant for its energy, but acquires through this dependence a greater freedom, a freedom of mobility. This latter development proved the most fruitful for the further evolvement of life, for with each step toward greater freedom of choice and movement, there also appeared a higher degree of consciousness. Then this consciousness in turn favored still freer movement and wider choice, and again the emergence of even more consciousness. But this evolvement toward further consciousness was not to proceed unabated. It seems that each new tendency contains within it both the force by which it is carried on, and the negative that tends to revert to a more primitive state. Thus there developed a further divergence in the evolution of life. A glance at animal evolution will disclose one tendency verging toward instinctive activity and another towards intelligent activity. But while instinctive activity stops up consciousness and tends to revert to an unconscious state, in intelligent activity the progress toward consciousness is carried to its highest form--the thought of man.

6. Instinct and Intellect.

The relation of evolution to a theory of knowledge will now become more evident. Bergson is firmly convinced that one can understand the nature and limits of intellectual knowledge and intuitive knowledge fully, only if one understands the biological movement that culminated in these two ways of adapting to the physical world. To speak of the activity of thought as a means of adaptation, rather than as a faculty for attaining truth, is itself (or at least was in Bergson's day) a novel view of the theory of knowledge.[1] But for Bergson it is absurd to try to understand the nature of thought or intuition apart from the existential situation in which they have originated.

Bergson sees in instinct and intelligence, above all else, "two different methods of action on inert matter."[2] The method of instinct is to incorporate inert matter within the organism itself so as to act on the physical world directly through its own organized instruments. Intelligence, on the other hand, makes instruments out of

---

1. Cf. Blanshard, NOT, I, 51: "Thought is that activity of mind which aims directly at truth." This gives to our thought primarily a speculative function, which Bergson denies. In the Introduction to Matter and Memory he states that "we must never forget the utilitarian character of our mental functions, which are essentially turned toward action" (p. xxi).
2. CE, 136.

unorganized matter and then acts on the physical world indirectly through these instruments. Another way of stating this is to say that animal adaptation is <u>instinctive</u> while human adaptation is <u>inventive</u>. "Invention," Bergson says, "becomes complete when it is materialized in a manufactured instrument."[1] This is the ideal of intelligence: "intelligence, considered in what seems to be its original feature, is the faculty of manufacturing objects, especially tools to make tools, and of infinitely varying the manufacture."[2] These tools, in the unintelligent animal, form part of the body itself, and corresponding to each tool there is an instinct that knows how to use it. Therefore, "instinct perfected is a faculty of using and even of constructing organized instruments; intelligence perfected is the faculty of making and using unorganized instruments."[3]

But one must not make a complete separation between these two physical activities. As Bergson asserts, there is probably "no intelligence in which some traces of instinct are not to be discovered, more especially no instinct that is not surrounded with a fringe of intelligence."[4] They are two methods of adaptive activity which are different, but complementary. The activity of an insect is almost completely instinctive, while there is much in the activity of

---

1. CE, 138.
2. CE, 138.
3. CE, 140.
4. CE, 136.

higher animals that is classified as intelligent e.g.; the ability of apes and elephants occasionally to use artificial instruments. Instinct still forms the basis of the psychical activity of the vertebrates below the level of man: but in man, intelligence, as utilized especially in invention, seems to play the dominant role. So life again seems to have diverged in two directions: one, the instinctive, found its representatives in the arthropods; the other, intelligence, verged towards the vertebrates, and found its highest expression in man.

There are obvious advantages and drawbacks to each of these modes of activity. Instinct, in having its instruments a part of the organism itself, combines complexity of organization with simplicity of function, thereby achieving a highly specialized mode of adaptation. But the specificity gained through the close fitting of the instrument with its object results in a loss of variability. The instrument constructed intelligently, on the other hand, is much more cumbrous to use, requires a greater complexity of function, and is, all in all, less efficient (compare a human hand with artificial hooks of amputees). But the advantage of the unorganized instrument is that it can be molded and adopted to serve any purpose. Once perfected, it has a kind of "functional autonomy"[1] thereby releasing man's attention for other

1. Borrowing a phrase from G. W. Allport.

things. And, as is especially evident today, for every need an invention satisfies, it creates many more. Thus the use of tools made from unorganized matter results in a wider and wider range of creative activity, while the tools of organized animals limit them to a somewhat closed circle of response.

This range of activity is also important in relation to the evolving of consciousness. The close connection between the organized instrument and its object in instinctive activity allows for little play of consciousness. In this kind of activity "<u>representation is stopped up by action</u>."[1] "For, where the implement to be used is organized by nature, the material furnished by nature, and the result to be obtained willed by nature, there is little left to choice."[2] But where there is selection of material, possibilities of different kinds of tools to be made, increasing demands to be met, the range of choice is exceedingly great. And it is the arithmetical difference between "potential and real activity," or instinctive activity and conscious selection, which, for Bergson, defines the actual consciousness of a living being.

This concept of consciousness is rather unique, and very important in the thought of Bergson. Bergson conceives of consciousness "as the light that plays around

---

1. CE, 144.
2. CE, 145.

the zone of possible actions or real potentiality,"[1] which is gradually diminished as the choice is made and the act completed. Possibility of choice initiates consciousness, but where the action performed is the only one possible, consciousness is reduced to almost nothing. And there seems to be much empirical evidence for this view. For when one is confronted with a possibility of several alternatives, the whole situation is represented in much of its variety, complexity, relations, potentialities, and consequences. But when once a selection or choice is made, and procedure determined, the scope or area of attention is greatly diminished. And as soon as one begins to act it is reduced even further, until, in the act itself, consciousness is reduced to almost nothing. There are few actions one has to think about in order to perform. In fact, it is only when the action is new that conscious control is usually necessary. Once learned, the act seems to go on unconsciously or, as Bergson would say, instinctively; e.g., walking, tying a shoelace, putting on a coat, opening a door, etc. There are even some cases in which conscious attention is a detriment, interrupting the established habit or action pattern.

When an act is performed we do not seem to be aware of any diminished state of consciousness because our minds turn to other things to think about instead. When

---

1. CE, 144.

walking, our mind wanders freely, not bound to the temporal or spatial events of our body. And isn't it true that our consciousness is occupied to a far greater extent with what is potential rather than actual. Our consciousness seems to precede or introduce many physical events, shaping potentiality into actuality. We could not act unless some possibility were made definite. A similar view of consciousness is held by Whitehead. He defines consciousness as the "feeling of contrast" between "theory" and "fact,"[1] or "potentiality" and "actuality."[2] According to Whitehead consciousness involves a proposition, the "logical subjects" of which are "actual entities," and the predicates "eternal objects," representing the potentiality of events.[3] And, according to Bergson, the possibility of making a choice is what initiates consciousness, while activity negates it.

> For consciousness corresponds exactly to the living being's power of choice; it is coextensive with the fringe of possible action that surrounds the real action: consciousness is synonymous with invention and with freedom.[4]

Therefore, intelligence, which involves a selection of materials, an imaginative construction of tools, and free use of such tools, requires a much greater degree of conscious awareness than instinctive activity. Intelligence tends toward consciousness, and instinct toward

---

1. See Whitehead, PR, 245.
2. See Whitehead, PR, 407.
3. See Whitehead, PR, 394-407.
4. CE, 263-264.

unconscious activity.

> In short, while instinct and intelligence both involve knowledge, the knowledge is rather acted and unconscious in the case of instinct, thought and conscious in the case of intelligence.[1]

There is implied, therefore, two kinds of knowledge in instinct and intelligence. If, as Bergson suggests, there is such a close tie between the organized instrument and its object in instinctive action, then instinct must involve innate knowledge of the object to which the instrument is applied. "Instinct is therefore innate knowledge of a thing."[2] But intelligence requires not so much the innate knowledge of a thing as the capacity to organize artificial instruments and relate them to changing situations. "What is innate in intelligence, therefore, is the tendency to establish relations."[3] The insect, from the moment it begins to live, seems to have an innate knowledge of its life cycle and the exact object on which it must act to complete this cycle.[4] The human infant, however, does not possess innate knowledge of things, but the capacity of forming relations between things. The new-born baby knows neither definite objects nor the properties of objects, yet it does possess the innate capacity to recognize the connection of attributes

---

1. CE, 145.
2. CE, 150.
3. CE, 151.
4. See CE, 146-147.

with objects. The general relation expressed by verbs is another natural endowment of human intelligence. Both thought and language depend upon this innate capacity of forming relations.

And an even more precise statement of the difference between instinctive and intelligent knowledge is that intelligence, in so far as it is innate, is the knowledge of form, while instinct implies the knowledge of matter.[1] Instinctive knowledge has the advantage of being intimate and complete; but formal knowledge, just because it is contentless, may be filled with any number of things. Instinct, therefore, gives a complete but restricted knowledge, while intelligence only provides us with the outline of an object, but an outline which is intensive in its scope.

Thus instinct is applied to organized matter, and intelligence to unorganized matter. Instinct involves innate knowledge of matter, while intelligence involves an innate knowledge of form. These two modes of activity are a result of both the divergent tendency inherent within consciousness itself, and the demands and adaptation of the organism to its environment.

---

1. See CE, 149. (Here form and matter are used in the conventional sense of the two ingredients of perceptual experience).

7. The Function of Intelligence.

But Bergson is not content, like most philosophers, with saying that the intellect has an innate capacity for establishing relations, or that it has an innate knowledge of form. Bergson seeks the reason why our intellects have just this function and no other. Either we find such a reason, he believes, or we are "reduced to taking the general frames of the understanding for something absolute, irreducible and inexplicable."[1] We then consider the "form of the understanding as fallen from heaven", as "each of us is born with his face."

The most common answer given to skirt the question of why is to say, with Kant, that the function of the intellect is essentially unification: "that the common object of all its operations is to introduce a certain unity into the diversity of phenomena."[2] But Bergson objects to this because unification is a vague term and it may even be asked if the function of the intellect is not to divide even more than to unite. But a stronger objection still is that if the function of the intellect is to unify, simply because it has the need of unifying, then the whole of our knowledge becomes relative to this arbitrary need. For an intellect that were formed differently, knowledge

---

1. CE, 152.
2. CE, 152.

itself would be different. Thus a principle is needed by which the function of the intellect can be explained, not arbitrarily, but according to some purpose. This principle Bergson finds in the needs of action. "Postulate action," Bergson asserts, "and the very form of the intellect can be deduced from it."[1] This form is then neither "irreducible" nor "inexplicable." Rather than knowledge being made relative to the absolute function of the intellect, the intellect is made relative to the needs of action. Thus "knowledge ceases to be a product of the intellect and becomes, in a certain sense, part and parcel of reality."[2]

But what is this reality that the intellect becomes a part of? It has already been found that intelligent action is directed toward inert matter. One may conclude, therefore, that "our intelligence, as it leaves the hands of nature, has for its chief object the unorganized solid."[3]

It was also found that the unorganized solid differs from the organized instrument in that it is not formed by the organism or instinct itself. The formation of this tool is the aim of intelligence; i.e., the first aim of the intellect is fabrication or construction.[4] And since intelligence involves innate knowledge of form, this fabrication must consist of "carving out the form of an object in

---

1. CE, 152.
2. CE, 153.
3. CE, 153.
4. CE, 153. (See)

matter."[1] In this process of fabrication the intellect never regards the form of things as final, but as if they could be cut out of matter at will. Hence, there arises our idea of matter as a kind of substratum (Aristotle, Locke, etc.,) receptacle (Plato) or continuum (Leibniz, Whitehead, etc.) for the reception of form. But this idea is merely a prejudice of the intellect. "The intellect is characterized by the unlimited power of decomposing according to any law and of recomposing into any system."[2]

The function of the intellect, therefore, is to impart form to inert matter. Now what is the most general property of solids and the material world? It is the property of being extended. The whole physical world presents to us objects existing apart from other objects, and parts external to other parts. In short, it is a world of discontinuous units. And since the intellect is most at home in this world, it is capable of forming a clear idea of the discontinuous alone.[3]

However, there is more in the discontinuous than mere spatial separation; along with the spatial separation there is temporal discontinuity (if time is conceived as an integral part of movement). The intellect finds itself at home not merely with the spatially dis-

---

1. CE, 155.
2. CE, 157.
3. See CE, 154.

continuous, but also with the immobile and the static. "If the intellect were meant for pure theorizing", according to Bergson, "it would take its place within movement, for movement is reality itself, and immobility is always only apparent or relative."[1] On this view, however, the intellect is not meant for pure theorizing, but has primarily a practical function. As such, as stated in the previous Chapter, it tends to freeze and chop-up whatever is flowing in reality. Of the continuous, and of movement, it only gives us a partial representation, but a representation that is much more applicable to social life.

But so far Bergson has merely explained the nature of representation. Postulate action or fabrication as the primary aim of intelligence, and the representation of the world as composed of discontinuous static objects can be understood. But there is more to intelligence than representation. Our reflective thought, the most refined function of intelligence, is characterized by its <u>freedom</u> from direct representation or perception. Reflective thought is considered most effective when it can substitute a symbol for an object and thus dispense with "picture thinking." If Bergson's view of the intellect is to be considered adequate, then he must account for this severance of thought from representation

1. CE, 153.

which makes possible imageless, conceptual, reflection--and also self consciousness.

And this is just what Bergson believes his theory can do. The key to his theory is language which he believes to be at the basis of thought itself.

For the moment, therefore, let us consider man, not as an isolated being, but as one who lives in society. Now, says Bergson, "it is difficult to imagine a society whose members do not communicate by signs."[1] "By language community of action is made possible."[2] This is true, he believes, as much for the insect society as it is for the human. But the requirements of the two societies are quite different. Since, as was found earlier, insect activity is primarily instinctive, and since instinctive activity involves innate knowledge of the thing to be acted upon, the communication of insects must be limited to definite objects--the signs of this language must be adherent to the thing signified.

But in human society fabrication and action are of variable form, and therefore require a language which is also quite variable. This requires a language whose signs, though not themselves infinite, can be extended to an infinite number of things. "This tendency of the sign to transfer itself from one object to another is

1. CE, 157.
2. CE, 157.

characteristic of human language: anything can designate anything."[1] Thus "_the instinctive sign is adherent_," while "_the intelligent sign is mobile_."[2]

Now, according to Bergson, this mobility of words not only makes it possible to extend them from one thing to another, but from things to ideas. He does say "that an intelligence which reflects is one that originally had a surplus of energy to spend, over and above _practically useful efforts_," but "without language, intelligence would probably have remained riveted to the material objects which it is interested in considering."[3]

> The word, made to pass from one thing to another, is, in fact, by nature transferable and free. It can therefore be extended, not only from one perceived thing to another, but even from a perceived thing to a recollection of that thing, from the precise recollection to a more fleeting image, and finally from an image fleeting, though still pictured, to the picturing of the act by which the image is pictured, that is to say, to the idea. Thus is revealed to the intelligence, hitherto always turned outwards, a whole internal world--the spectacle of its own workings. It required only this opportunity, at length offered by language.[4]

Thus there was latent in intelligence, as in the other tendencies, a function which needed only to be freed, to be expressed or utilized. This function was reflection or abstract thought, and the means of freeing

---

1. CE, 158.
2. CE, 158.
3. CE, 159 (Italics mine.)
4. CE, 159.

this thought was language. It is the word, flirting with man's intelligence, that caused the divorce of thought and thing. Thus began the most significant triangle of history: the referent, the reference, and the referend.[1] The word, originally standing for the thing, then came to mean the thing not here, the thing not now, the thing not yet; until finally, it stood for no thing at all, but an idea of a thing. Then thought, released from its external obligation, turned in upon itself, and attempted to introspect its own being. In this operation it applied the same forms to the understanding of the self as it did to the outer, solid, static, extended world. Thus it sought a substratum for consciousness as it had postulated a substratum for objects. And since the forms of the intellect were made for cutting out of reality the patterns of things, so these forms made of conscious duration a series of discrete states. Therefore, intelligence, made for action, over-steps its bounds when it tries to comprehend consciousness or life. It can deal perfectly[2] with the world of representation--the material world--, but the world of living, flowing, creative reality it does not reach at all. The intellect, made for action on inert

---

1. Object, meaning, knower.
2. This will be discussed more fully in the next chapter.

matter, is only bewildered when confronted with the creative evolution which is life. In short, "the intellect is characterized by a natural inability to comprehend life."[1]

8. The Function of Intuition.

But though the intellect is thus limited, intuition is not: "it is to the very inwardness of life that intuition leads us."[2] And by intuition Bergson means

> instinct that has become disinterested, self-conscious, capable of reflecting upon its object and of enlarging it indefinitely.[3]

There is some ambiguity in this definition of intuition, but what Bergson apparently means is this. When he says that intuition is instinct "become disinterested," "capable of reflecting upon its object," this sounds very intellectualistic. But it must be remembered that intuition, for Bergson, is midway between instinct and intelligence, and represents a kind of synthesis of the two. It contains the more favorable qualities of each. Thus intuition, as he says, is instinct become disinterested and reflective. And this instinct, it was found, is a continuation of the function by which life organizes matter into organic instruments or tools.

---

1. CE, 165.
2. CE, 176.
3. CE, 176.

> When the little chick is breaking its shells with a peck of its beak, it is acting by instinct, and yet does but carry on the movement which has borne it through embryonic life.[1]

Thus instinct, as a channelizing and focusing of the life force on particular objects, remains self-contained and unconscious. In fact, it stops up consciousness by the very precision of its function. It proceeds as if it remembered the whole past history of the species, and then acted reflexively on the strength of this knowledge.[2] This is why intelligence was needed to achieve a reflective conscious intuition.

In the other extreme, intelligence externalizes itself in the process of adapting to, and acting on, the material world. Bergson says that intelligence is, "before anything else, the faculty of relating one point of space to another, one material object to another."[3] Thus intelligence is at home among things, but remains completely external to them. Instinct, on the other hand, in the very fact of its organization and function has an internal grasp of things, especially life itself: "for--we cannot too often repeat--intelligence and instinct are turned in opposite directions, the former toward inert matter, the latter toward life."[4]

Now intuition falls in between these two extremes. It

---

1. CE, 165.
2. See CE, 167.
3. CE, 175.
4. CE, 176.

is closest to instinct, but differs from it, in that it is more detached and aware. It is not, like instinct, a continuation of the vital process, as much as an extension of it--it does not contain its object but must, like intelligence, reach out for it. But unlike intelligence, it does not remain external to what it grasps--whether an object or the life force itself--rather, it knows this object intimately and sympathetically. It can best be represented, perhaps, in aesthetic experience,[1] in which the subject and the object of the experience are, at the start, externally related. But in the process of achieving an aesthetic experience, the externality or ego identity of the appreciator is gradually overcome, until finally, if an aesthetic experience is really had, there remains but pure experience with a submerged subject and object pole. The object and subject remain ontologically distinct, but as far as the experience is concerned, there is no longer a feeling of external relatedness. Rather, the experiencer feels himself at one with the object; he literally feels himself within the object. And this is what Bergson means by intuition: intuition, like aesthetic insight, is an internal, sympathetic, absolute grasp of the object, in which all duality tends to be eliminated. It is true that the point of absolute identity is never completely reached in either experience (intuitive or aesthetic), but a pene-

---

1. See CE, 177.

trating insight into the object is achieved which can never be duplicated by analysis, reflection, or representation. One emerges from an aesthetic experience with a feeling of richness, atonement, and heightened sensibility which cannot be translated fully into any language but the artistic.

It is this kind of insight which Bergson means by intuition. It is his purpose to lead philosophers to direct their intuition back to the life force itself, and thus experience the full force--the novelty, the creation, the freedom--that life contains within itself. This experience, once had, could not be reconstructed conceptually, but would give the philosopher an enduring insight into the true nature of reality--an insight which would prevent him from ever conceiving of reality as materialistic, mechanistic, or deterministic. This is the function of philosophy.

9. Summary and Conclusion.

In this Chapter the core of Bergson's "theory of life" in its relation to his "theory of knowledge" has been presented. The Chapter began with an analysis of the nature of the life process, through which it was found that life, like consciousness itself, or the universe as a whole, endures. And it was also found that this process does not occur by a mechanical or planned association and addition of elements--Bergson rejects radical mechanism and radical finalism--but by the dissociation and division of an original impetus. Thus life evolved from a common impetus, which, Bergson suggests, can best be described as being similar to consciousness itself.[1]

Life began by penetrating matter, loaded, as all life is, with an enormous multiplicity of interwoven potentialities. Matter tends to oppose and limit these potentialities, acting as a dam through which the current of life must seep its way. But slowly and gradually life worked its way into the cracks and crannies of matter,[2] adapting itself to the existing conditions and incorporating matter into its own organization whenever possible.

The first two tendencies of life to be freed from the grip of matter were the vegetative and the animal. In the vegetative, lack of movement condemned consciousness to a state of torpor. But in the animal, freedom of movement effected the release of consciousness to a greater or lesser degree. In the lesser degree activity remained instinctive, and consciousness was to a great

---

1. This point will be fully discussed in the next chapter.
2. The nature of matter will be discussed in the following chapter.

extent shut up within the organism itself, bound to its own organized instruments.

Intelligent activity, however, effected the release of consciousness to a greater degree. In this type of activity the organism was able to extend its control beyond its own organized instruments, to the inventive construction of inert matter into tools and instruments. Both instinct and intelligence represent two methods of acting on inert matter; but whereas instinctive adaptation acts on the physical world directly through its own organized instruments, intelligence acts on the physical world indirectly, by means of instruments made from unorganized matter. The first type of activity is more direct and efficient, but the second allows for a greater degree of choice and variety. And since Bergson finds the consciousness of a living being to be defined by the arithmetical difference between potential and real activity, intellectual adaptation, by definition, requires and promotes a greater degree of consciousness. Thus instinct and torpor tend toward unconscious activity and intelligence toward greater consciousness.

Then it was found that instinct and intelligence involves two kinds of knowledge. Instinct, bound to the organized object, possesses an innate knowledge of things. Intelligence, adept at organizing instruments and relating them to changing conditions, possesses an inate capacity for establishing relations. Or, expressed differently, instinct involves inate knowledge of content, while intelligence involves inate knowledge of form.

This particular form of the intellect, according to Bergson, can only be understood if considered in relation to the needs of action. Intelligent activity has as its first aim the fabrication of inert matter. Therefore, the function of the intellect is to impart form to matter. If action or fabrication is postulated as the primary aim of intelligence, then one can expalin why the world comes represented as being made up of discontinuous static objects.

Turning then from intellectual representation to reflective thought, it was found that this transition could be understood in relation to the function of language. The referential function of language allows thought to substitute symbol for object, further widening the bond that would tie thought to particular things. Reflective symbolic thought exemplies the formal aspect of the intellect in its highest degree. And thought thus released from its external obligations, turned inward upon itself, reconstructing the inner flow of consciousness in terms of the material, spatial, and temporal forms of the intellect. But in this effort it reveals its natural inability to comprehend consciousness and life.

And finally, it was found that the comprehension of life requires intuition. Whereas intelligence and instinct are turned in opposite directions, the former toward inert matter, and the latter towards life, intuition falls in between. Intelligence has so extended its activity beyond life, that it now lacks the natural capacity to comprehend life. Instinct, however, is still too much imbedded in life to impart much knowledge of its source. But intuition, containing the internal and vitalistic qualities of instinct, as well as the "disinterested" and "reflective" qualities of the intellect, is close enough to life, and still free enough to give some insight as to its nature. In fact, intuition takes us into the very inwardness of life and reality itself. To experience life and consciousness intuitively is to feel the creation, the freedom, the novelty in reality. Such is the task of the philosopher.

CHAPTER III

INTELLECT AND MATTER

1. Introduction.

In the first chapter of this thesis the psychological difference between intelligence and intuition was considered, with particular stress placed on the relation of intuition to time, and of the intellect to space. In the second chapter the relation, so important for Bergson, between a theory of knowledge and evolutionary theory was discussed. An attempt was made to follow the evolution of life to discover at what points instinct, intuition, and intelligence emerge. It was found that instinct and intelligence are pointed in opposite directions--the former toward life and the latter toward matter. Intuition, remaining midway between the two, possesses some of the qualities of each.

But for a complete understanding of the significance of intelligence and intuition in Bergson's philosophy one must go beyond the special considerations of a theory of knowledge to his metaphysical views. As he himself says, "the problem of knowledge...is one with the metaphysical problem."[1] For if the original impetus, which Bergson for want of a better term calls consciousness or

---

1. Bergson, CE, 178.

supra-consciousness, has split up into instinct and intelligence because of the need for, and the different ways of applying itself to, matter, then the nature of matter itself becomes of importance. "The double form of consciousness is then due to the double form of the real, and a theory of knowledge must be dependent upon metaphysics."[1]

The "double form of the real," then, will be under consideration in the present chapter. Matter and the _élan vital_ are the two forms of the real which constitute the universe as we know it. Does this mean, therefore, that there is an ultimate metaphysical dualism in Bergson's philosophy, or do life and matter have a common origin? And if they do have a common origin, what would this origin be, and how could two such seemingly different entities arise from it? And finally, what is the epistemic relation of intellect and matter, of intuition and life, from a metaphysical rather than an evolutionary point of view? These are the questions which this chapter will attempt to answer.

2. Intellect and Matter.

In the discussion of the self, in the first chapter, it was found that Bergson distinguished two aspects of the

---

1. CE, 178.

self; i.e., the superficial spatialized aspect, and the deeper temporal flow. When we draw ourselves inward, according to Bergson, and experience the sentient flow of our deeper consciousness, then we are most vitally ourselves. We compress our whole past into the tensional duration of the present, cutting into the future with each creative act.

> The more we succeed in making ourselves conscious of our own progress in pure duration, the more we feel the different parts of our being enter into each other, and our whole personality concentrate in a point, or rather a sharp edge, pressing against the future and cutting into it unceasingly.[1]

We pass from this deeper level to the more superficial aspect of the self by way of relaxation. As soon as we interrupt the effort to crowd our past into the present, our consciousness spreads out, each state separating from the next.

> At once the self is shattered; our past, which till then was gathered together into the indivisible impulsion it communicated to us, is broken up into a thousand recollections made external to one another.[2]

In this way our self detends in the direction of space. Spatiality and duration are different tensions of our conscious life and we can pass from one to the other by way of inversion.[3]

---

1. CE, 201. 2. CE, 201.
3. CE, 223. (This does not mean that space is an entity into which consciousness spreads itself; rather it is a result of the "crystallization" of the sentient flow into distinct, separable, conscious states.)

Now it is this same process, according to Bergson, that provides the clue to the relation of consciousness and matter. For it is the spatial form of consciousness that is basic to intelligence, and since intelligence and matter are molded on one another, we can discover the genesis of matter in following the genesis of the intellect.

> As matter is determined by intelligence, as there is between them an evident agreement, we cannot make the genesis of the one without making the genesis of the other. An identical process must have cut out matter and intellect, at the same time, from a stuff that contained them both.[1]

This "stuff" Bergson calls consciousness or supra-consciousness, and just as duration and spatiality, or intuition and intellect are inversions of finite consciousness, so are matter and life inversions of the cosmic consciousness. Conceived from a cosmic point of view, "physics is simply psychics inverted."[2]

This explains why the mind finds extension in things. There is the natural tendency of the mind to relax and spread its contents in space, but matter furthers this tendency along: "matter...aided mind to run down its own incline; it gave the impulsion."[3] But just as matter carries mind toward spatiality, so does the spatializing

---

1. CE, 199.
2. CE, 202. (This comes very close to a double aspect theory, but never quite reaches it, as will become evident.)
3. CE, 202.

tendency of the mind aid in segmenting and extending matter. It was found in the second chapter that mind isolates and cuts out the form of things in matter. And it is these isolated forms which appear extended. But when attention is diverted, the projected figures seem to merge into the background from whence they arose. Remove our stereoscopic vision of things and the depth and solidity of objects seem to vanish.

> Perspective provides plenty of instances. We all know that stereoscopic vision is possible within a relatively narrow range. Outside this range there is what is called Collapse of Planes, and objects undergo various sorts of 'distortion'. Thus a hillside which is full of protuberances, and slopes upwards at quite a gentle angle, will appear flat and vertical, like a scene painted on cardboard.[1]

And the more the scope of our vision is enlarged, the less we perceive distinct objects. It is true our vision remains spatial, but the extension of individual things is less apparent. This indicates, for Bergson, that the solidity of matter is a relative thing, just as the spatiality of consciousness is relative.

> What else can this mean but that matter _extends_ itself in space without being absolutely _extended_ therein, and that in regarding matter as decomposable into isolated systems ...in conferring on matter the properties of pure space, we are transporting ourselves to the terminal point of the movement of which matter simply indicates the directions?[2]

---

1. Price, PER, 28. 2. CE, 203.

Thus we find that matter and intellect determine the form of one another, or rather, that matter does not completely determine the form of the intellect, nor does the intellect completely impose its form on matter, but that intellect and matter have progressively adapted themselves to each other in order to attain a common form.[1]

> The adaptation has, moreover, been brought about quite naturally, because it is the same inversion of the same movement which creates at once the intellectuality of mind and the materiality of things.[2]

3. Bergson's Criticism of Kant.

This conclusion contains Bergson's answer to Kant. Kant conceived of space as a form of intuition through which the "sensuous manifold" must pass to become conscious experience at all.[3] But in the process of being organized or bathed in an atmosphere of spatiality, the original identity of the causes of the sensuous manifold is lost. Thus space (and also time and the categories) separates conscious experience from the reality of "things-in-themselves." But Bergson criticizes this view because Kant can give no reason why the mind should

---

1. See CE, 206. (It is not clear whether Bergson means to give to matter an ontological status, or whether it is merely a form, like space, of unconsciousness. See next chapter.)
2. CE, 206.
3. See Kant, CPR, A24, B39.

take on just this form and no other.

> With Kant, space is given as a ready-made form of our perceptive faculty--a veritable <u>deus ex machina</u>, of which we see neither how it arises, nor why it is what it is rather than anything else.[1]

And "things-in-themselves" are also given, of which Kant claims we can have no knowledge. But Bergson asks, "by what right, then, can he affirm their existence, even as 'problematic'?"[2] "And if the unknowable reality projects into our perceptive faculty a 'sensuous manifold' capable of fitting into it exactly, is it not, by that very fact, in part known?"[3]

These are, of course, standard criticisms of Kant and ones which Bergson believes his theory has answered. For if, as Bergson suggests, intellect and matter are inversions of the same movement, and have progressively adapted themselves to each other in order to attain a common form, then we can understand why intellect can know matter. On this view there is no spatial form separating an unknowable reality from a knowing mind, but rather, <u>space is the form which both matter and mind take on as an inversion of the same vital process.</u> Mind can know matter because both have attained the same form in adapting to one another. There is, of course, on Bergson's view an aspect or pole of reality which the intellect cannot know, a reality to

---

1. CE, 205.
2. CE, 205
3. CE, 205.

be reached by intuition. But this reality does not lie hidden behind the physical world--it is rather an inversion of the physical world,[1] as intuition is an inversion of intelligence.

Bergson, however, not only believes his theory can transcend Kant's metaphysical scepticism, but that it can also answer the main question of the "Critique." As Kant stated it, "the proper problem of pure reason is contained in the question: How are a priori synthetic judgments possible?"[2] More generally, he was concerned with how pure mathematics, pure natural science, and metaphysics is possible.[3]

The "shining example" of a priori knowledge according to Kant, was mathematics, especially geometry.[4] His discussion as to how mathematical or geometrical truths are possible a priori is too well known to need elaboration here. If space, as a form of intuition, is logically prior to any actual experience, then we can understand how universal and necessary geometrical knowledge is possible. Our intellects discover in matter the geometrical order which our intuitions have already deposed there. And epistemologically, Bergson is not in fundamental disagreement with this conclusion (though

---

1. This will be enlarged upon later on.
2. Kant, CPR, B19.
3. See Kant, PRO, 27.
4. See Kant, ~~CPR~~, A4, B8.

he believes, as Kant does not, that space is also a form of matter which, rather ambiguously, is also a form of the mind). He says that "prior to the science of geometry, there is a natural geometry whose clearness and evidence surpass the clearness and evidence of other deductions."[1] And also, that there is "a latent geometry immanent in our idea of space, which is the main spring of our intellect and the cause of its working."[2]

However, Bergson criticizes Kant because he believes that Kant can give no reason why the mind should take on just the particular form it does. "It is not enough to determine by careful analysis, the categories of thought; <u>one must engender them</u>."[3]

> As regards space, we must, by an effort of mind <u>sui generis</u>, follow the progression or rather the regression of the extra-spatial degrading itself into spatiality. When we make ourselves self-conscious in the highest possible degree and then let ourselves fall back little by little, we get the feeling of extension: we have an extension of the self into recollections that are fixed and external to one another, in place of the tension it possesses as an indivisible active will.[4]

Thus, for Bergson, the mind engenders space in the process of "detension" or "relaxation." When we pass from the inner durational aspect of our "selves," to the

---

1. CE, 211.
2. CE, 211.
3. CE, 207 (italics mine).
4. CE, 207.

superficial spatial aspect, we gradually pass from tension to extension. And there is contained in this form of spatiality, the geometrical order of nature itself. "All the operations of our intellect tend to geometry as to the goal where they find their perfect fulfillment."[1] And the material world, also embodying a spatial form and therefore a geometrical order, is the natural correlate of our intellects. "The intellect bears within itself...a latent geometricism that is set free in the measure and proportion that the intellect penetrates into the inner nature of inert matter."[2]

4. Deduction and Induction.

But there is more than a latent geometry immanent in our idea of space. Deduction and induction, the other foremost accomplishments of the intellect, are also dependent upon the idea of space. Unfortunately, Bergson does not consider logical deduction, but only geometrical deduction. He apparently assumes that the former is a form of the latter.

> You cannot present...space to yourself without introducing, in the same act, a virtual geometry which will, of itself, degrade itself into logic.[3]

---

1. CE, 210.
2. CE, 195.
3. CE, 212.

There is a sense in which the deductive relations in geometry are similar to the deductive relations of logic, in that they are both a priori, but whereas logic deals with relations of thought or language, geometry deals with spatial relations. And it is not at all evident that these are equivalent.

Bergson does consider inductive logic, however. Induction, he says, rests on two beliefs: "that there are causes and effects, and that the same effects follow the same causes."[1] These beliefs imply that reality is decomposable into isolated systems which can be segregated and repeated indefinitely. In fact, it consists in superimposing one set of conditions on another, and then imagining that the causes and effect are identical. And this superimposition, he believes, is essentially geometrical in nature.

Our inductions are certain, to our eyes, in the exact

> degree in which we make the qualitative differences melt into the homogeneity of the spaces which subtends them, so that geometry is the ideal limit of our inductions as well as our deductions. The movement at the end of which is spatiality lays down along its course the faculty of induction as well as that of deduction, in fact, intellectuality entire.[2]

1. CE, 214.
2. CE, 216.

5. Materiality and the Order of Nature.

This movement ending in spatiality is also the source of the order in nature, as well as the forms of thought. However, this order for Bergson is not as extensive as the universe itself. It is relative, rather, to that area of nature which the intellect selects to consider. It was mentioned in the second chapter that the universe taken as a whole is, on Bergson's view, an enduring process. But from this process we can select, and thereby isolate, units which appear to be self-sufficient, static, and mechanistically determined. This interruption of isolation of a part of the universe seems, therefore, to result in a geometrical order.

> It seems to us...that the complexity of the material elements and the mathematical order that binds them together must arise automatically when within the whole a partial interruption or inversion is produced.[1]

This means that the laws of the universe, taken separately, have no objective reality: "each is the work of an investigator who has regarded things from a certain bias, isolated certain variables, and applied certain conventional units of measurement."[2] If the mathematical

1. CE, 217.
2. CE, 218. (Here Bergson implies a purely conventional view of natural law founded on a sociological basis --a view similar to that of Poincaré and Durkheim.)

order were a positive thing, according to Bergson, or if there were immanent in matter laws comparable to our conventional way of measuring, then "the success of our science would have in it something of the miraculous."[1] There seems to be an order approximately mathematical immanent in matter, an order which science appears to approach as it progresses, but this order is, according to Bergson, conventional rather than actual. Nature is considered to be ordered to the degree in which it satisfies our thought (a belief hard to accept when one falls down).

> One hypothesis only, therefore, remains plausible, namely, that the mathematical order is nothing positive, that it is the form toward which a certain interruption tends of itself, and the materiality consists precisely in an interruption of this kind.[2]

Thus we find that materiality and the order immanent in nature is not a reality in itself, just as the geomettical order was not an independent reality. Rather, the material order is an "interruption" and "isolation" of the vital order,[3] just as the geometrical order was an inversion of the vital order. Materiality consists of an interruption of the tendency pressing towards spatiality. But in neither case is matter or the geometrical order an independent reality. They are a suppression and substitution of the vital order.

---

1. CE, 219.
2. CE, 219.
3. See CE, 224.

6. Genesis of Matter.

What is the principle, then, that only has to let go its tension--to detend or relax--in order to extend itself spatially, and which, when interrupted, appears as matter? It has already been suggested that Bergson likens this principle to consciousness. But he does not mean "that narrowed consciousness that functions in each of us."[1]

If our analysis is correct, it is...

> rather supra-consciousness, that is at the origin of life. Consciousness, or supra-consciousness, is the name for the rocket whose extinguished fragments fall back as matter; consciousness, again, is the name for that which subsists of the rocket itself, passing through the fragments and lighting them up into organisms.[2]

But just how do these fragments of matter arise from the explosive force of life? To explain this Bergson resorts to an analogy, as he so often does to illustrate his contentions. Let us, he says, "imagine a vessel full of steam at a high pressure, and here and there in its sides a crack through which the steam is escaping in a jet."[3] The steam which thus escapes is, according to Bergson, nearly all condensed into little drops which fall back, and thus represent a loss of something, an

---

1. CE, 237.
2. CE, 261.
3. CE, 247.

interruption, or inversion. Each drop falling back impedes the original jet of steam, but is carried on by each fresh jet. "So, from an immense reservoir of life, jets must be gushing out unceasingly, of which each, falling back, is a world."[1]

This, then, is Bergson's view of reality. It is a magnificient dramatic vision of the nature and formation of the universe. From an immense source of cosmic energy or life there is continually thrown off the worlds and galaxies populating the universe. This energy when projected beyond its source seems to condense into matter. But there is contained along with it the spark or life of the original impulsion which then tries to permeate the matter opposing it, and carry it to further creative organization. This view is consistent with the most basic laws of physics--it is an extension "to the whole of our solar system the two most general laws of our science, the principle of the conservation of energy and that of its degradation."[2]

The law of the degradation of energy is represented in the condensation of matter. The law of the conservation of energy expresses that something is preserved in constant quantity. But the latter principle is conventionalized when applied to matter.[3] It fails to take in-

---

1. CE, 247.
2. CE, 241.
3. See CE, 242.

to account the creativity exemplified in life and in our own psychic experience.

Creativity rather than conservation is the keynote of reality for Bergson. The impetus of life consists in a need of creation. It cannot create freely because it is confronted with matter, the movement which is the interruption of its own. "But it seizes upon this matter, which is necessity itself, and strives to introduce into it the largest possible amount of indetermination and liberty."[1] Physics, concentrating on matter, finds necessity and conservation; biology and psychology, concentrating on life and consciousness, find freedom and creativity.

> Consciousness is essentially free; it is freedom itself; but it cannot pass through matter without settling on it, without adapting itself to it: this adaptation is what we call intellectuality.[2]

We experience this freedom, according to Bergson, when we put "back our being into our will, and our will itself into the impulsion it prolongs;" then we understand, we feel, "that reality is a perpetual growth, a creation pursued without end."[3] We then feel ourselves a part of the "vital current itself," but a current "loaded with matter."[4] This current of life is like an immense wave which starting from a center, spreads outwards, always opposed by the descending movement of

---

1. CE, 251.
2. CE, 270
3. CE, 239.
4. CE, 239.

matter. At one point only has this wave of creative energy, life, or supra-consciousness, penetrated the barrier of matter. "Everywhere but in man, consciousness has come to a stand; in man alone it has kept on its way."[1]

Thus man alone carries the vital impulsion forward. On other lines of evolution there have traveled other tendencies, but all were constrained by the opposition of matter. "Everywhere except in man, consciousness has let itself be caught in the net whose meshes it tried to pass through: it has remained the captive of the mechanisms it has set up."[2] But life is still an extension and yields to the same tremendous push. How far this push will carry it, no one knows. Perhaps death itself will not remain an inevitable obstacle.[3]

7. Bergson's Concept of Philosophy.

Now that the real has been defined, the nature and purpose of philosophy can be disclosed. For though the reality disclosed by one's method of philosophy depends to a great extent upon what that method is, once the reality is determined, the nature of philosophy itself can be determined.

Reality for Bergson, it is now clear, is akin to

---

1. CE, 226.
2. CE, 264.
3. See CE, 271.

consciousness. But it is, quite naturally, a consciousness that transcends finite consciousness. It is a "supra-consciousness" and its attributes are rather diverse: life, creativity, freedom, vitality, tension, and duration on one side, and detension, matter, spatiality, necessity on the other. But it is also clear that matter and detension are an inversion of the more positive qualities of reality such as creativity and duration. All are subsumed, however, under the concept of "supra-consciousness."

The creative force of reality is seen in the formation of nebular systems and in the biological evolution of living organisms. Life itself is a continuation of the _élan vital_ of reality. The tension and duration of reality is expressed in the tension and duration of psychic life. But there is also a detension of reality in the direction of space. When expended in creation, the supra-consciousness tends toward a spatial form. But this movement toward a pure homogeneous space is never reached; it is interrupted and thereby condenses into materiality. This form of extension is an inversion of the tension of supra-consciousness.

Both of these tendencies or aspects of reality are experienced in man. His consciousness represents an infinitesimal drop of the supra-consciousness, but contains the same inversions. Man's intellect represents the detensive or spatialized aspect of the supra-consciousness, while his intuition represents the tensional or vital aspect. Through his intellect man can know the material world, and by analysis, induction, deduction, and geometry he can extend his knowledge of this world. By his intuition he can experience the vital, creative, beat of reality, and therefore feel his own true nature.

The physical sciences, and mathematics, are the sciences of the intellect. "Physics understands its role when it pushes matter in the direction of spatiality,"[1] and thereby treats it mathematically. Thus science has been most successful when investigating the spatial and inert qualities of matter. These same methods of science when applied to the biological, social, and psychological sciences, however, have been far less successful in achieving exact results. The exact sciences are the physical sciences.. Why is there a difference in exactitude between the two kinds of sciences? The reason, according to Bergson, is because scientists have tried to apply the same techniques to the study of living organisms that they applied to the study of inert matter, not recognizing the differences between the two. But it is the very qualities of life--growth, reproduction, movement--which escapes the scientific formulas.

---

1. CE, 208.

To understand life one cannot use the intellect which is molded on inert matter.

To understand life and personality on Bergson's view, one must not dissect it with the categories of thought, or sterilize it with the formal analysis of logic. "Life is deeper than logic,"[1] and also transcends the intelligibility of the intellect. If one is to understand life--which, though an extension of matter, is still closer to the heart of reality--one must not use the method of the physical sciences. A new method is necessary.

And though Bergson does not outline such a method for biology or psychology, he does describe the method for philosophy. And this method is the method of intuition. The purpose of philosophy, according to Bergson, is not to take the facts handed down by science and reformulate them into a system, as if the philosopher could add to the knowledge of the empirical investigator anyway.[2] Rather, the purpose of philosophy is to seek new insights into the creative origin of life through his use of intuition. Such insights are impossible to the intellect molded on space and matter. The intellect, through its concepts, translates and abstracts the qualitative, dynamic, vital aspects of life into quantitative, static, homogeneous units.

---

1. A phrase used by Borden P. Bowne. 2. See CE, 194.

> But to seek to penetrate with them (concepts) into the inmost nature of things, is to apply to the mobility of the real a method created in order to give stationary points of observation on it. It is to forget that, if metaphysics is possible, it can only be a laborious, and even painful, effort to remount the natural slope of the work of thought, in order to place oneself directly, by a kind of intellectual expansion, within the thing studied: in short, a passage from reality to concepts and no longer from concepts to reality.[1]

Thus the purpose of philosophy is to give man an "internal" grasp of the nature of things. Our intellects give us a reconstructed externalized view of reality. Whatever is most vital, most living, most creative is lost in the transition from the internal grasp of the real to the external representation. But fortunately, this is not the only method open to the mind.

> The truth is that our intelligence can follow the opposite method. It can place itself within the mobile reality, and adopt its ceaselessly changing direction; in short, can grasp it by means of that <u>intellectual sympathy</u> which we call intuition. This is extremely difficult. The mind has to do violence to itself, has to reverse the direction of the operation by which it habitually thinks, has perpetually to revise, or rather to recast, all its categories. But in this way it will attain to fluid concepts, capable of following reality in all its sinuosities and of adopting the very movement of the inward life of things. Only thus will a progressive philosophy be built up, freed from the disputes which arise between the various schools, and able to solve its problems naturally, because it will be released from the artificial expression in terms of which such problems are posited. <u>To philoso-</u>

---

1. ITM, 44.

> phize, therefore, is to invert the habitual direction of the work of thought.[1]

This inversion of thought, the accompanied grasp of reality, and the insights developed from it are what Bergson hoped to have accomplished in his own philosophy.

1. ITM, 50-51.

CHAPTER IV

SUMMARY AND CRITICISM

1. Summary.

In the preceding three chapters an effort has been made to present, in developmental form, those aspects of Bergson's philosophy which are directly related to his theory of knowledge. Bergson believes, as do the pragmatists and other anti-intellectualists, that the true nature of reality never can be grasped through static, abstract, intellectual concepts. This belief is based on the discovery (or so thought Bergson) that mathematics, long considered the ideal of rational thought, cannot deal adequately with time or movement. This belief was also held by intellectualists such as Kant and Bradley. Kant pointed out the various antinomies in the notion of time and this led Bradley to conceive of time as an illusion.

Bergson, however, as is well known by now, conceives of time itself as real, and insists that the attempt by philosophers to reconstruct time intellectually is the source of the illusion. "Metaphysics," he says, dates from the day when Zeno of Elea pointed out the inherent contradictions of movement and change, as our intellect represents them."[1] If the intellectual concep-

1. Bergson, CM, 16.

tion of time is such, as Zeno pointed out, to render any movement impossible, then, Bergson concludes, there must be something at fault with the intellect itself.[1] The change and motion given in immediate experience must be appreciated from the vantage point of immediacy alone. And since a name had to be given to this method of knowing, Bergson called it the intuitive method, since historically intuition has meant a kind of direct knowledge which transcends intellectual reflection. As Bergson's philosophy developed, intuition came to mean more than just an immediate awareness of time and change. Or rather, as time or duration was made into a metaphysical ultimate, intuition came to be the only method by which reality could be apprehended.

Bergson's interest in time naturally led to an analysis (not consistent with his preferred method of intuition) of the inner self, for the time obscured by mathematics is not the physical or conventional time of science, but the subjective time of consciousness. Here he says, he "found pure, unadulterated inner continuity (duration), continuity which was neither unity nor multiplicity, and which did not fit into any of our categories of thought."[2] It is this inner duration which

---

1. There is another alternative, however, and that is that Zeno's analysis of time was false, and does not represent a necessary limitation of the intellect. This alternative will be considered later.
2. Bergson, CM, 12.

Bergson selected as the true reality of the self. He was prompted in this by the feeling that free creative activity could not be understood conceptually, but could be experienced in the flow of our personality through time.

Having discovered duration in the inner self, Bergson then turned to an analysis of the outer world. There, as in the analysis of the self, the spatial and intellectual categories of thought at first made the discovery of duration extremely difficult. On closer inspection, however, Bergson noticed that even such simple phenomena as the dissolving of sugar in water, or the rusting of iron takes time. The physical world seems to be effected by time (though not to as great an extent) as the organic world is.

But it was in the observation of organic life, or living things, that Bergson found a significant and obvious representation of time as he had discovered it in the inner self. The evolution of life, as well as the development of each individual organism, presupposes a time which is continuous, cumulative, and above all--real. And in the light of the evolutionary perspective this concept of real duration can be given a more concrete formulation. That is, duration becomes an essential quality of the supra-consciousness which is the original impetus behind the evolving of all life, as it is also the source of the universe as a whole.

But the exemplification of real time was not the only aspect of the evolutionary process made use of by Bergson. The theory of evolution also provided Bergson with a means for interpreting the function of the intellect and intuition in man. Intuition, instinct, and intelligence have been evolved, according to Bergson, just as the other organs and abilities of man and animals have been evolved. And they can be adequately understood only in relation to the movement that has deposited them.

This movement, itself a continuation of the impulsion of life, is also the source of matter. Matter, from the cosmological standpoint, represents a kind of falling back, or condensation of the dissipated *élan vital*.[1] This materialization represents an opposition to the evolving of life, which opposition was overcome mainly through adaptation. Now it is in considering the nature of this adaptation that Bergson claims to discover the method of interpretation by which the forms or categories of the intellect may be explained. The forms of the intellect have been determined by the necessity of

1. The numerous problems in Bergson's conception of matter will be discussed a little later.

adapting to the physical world. Bergson is in difficulty here, as we shall see later, because he also claims the forms of the intellect determine the form of matter. But this at least is clear: if we postulate the needs of action, on Bergson's views, then we can explain why the forms of the intellect have been developed as they are.[1] The tendency towards intellectualization was present even from the beginning in the supra-consciousness, but the particular form evolved has been effected by the material world on which it has been impelled to act.

Having adapted itself to matter, the intellect can provide man with a true knowledge of the physical and spatial world. By means of deduction, induction, and mathematics the investigation of the physical world has reached the high degree of precision which it now has. Scientific knowledge, according to Bergson, "involves absolute precision and complete or mounting evidence."[2] But Bergson was disturbed because he found that philosophical knowledge could give no evidence of such precision, and in fact, did not seem to indicate that it ever could. So he tried to find a philosophical method which would give at least as precise a knowledge as science. But even this wasn't enough. For

---

1. This view too will be criticized later.
2. CM, 10.

science recieves its precision from the logical implication of its mathematical symbols, but the symbols themselves are not the objects, and therefore represent an abstract translation of concrete things.

What Bergson really wanted was a method that would give a complete or "absolute" knowledge of each thing in its own unique particularity. He was not as interested in founding a complete systematic metaphysics as he was in providing a method whereby philosophers could continue to extent their knowledge, in a way closed to the analytic-symbolic method of scientists. The method Bergson selected was the intuitive method, since it way by this method that he had already discovered true duration, and the inner continuity of the self.

In selecting intuition as the true philosophical method, Bergson also sought its origination in the evolutionary process, as he had also sought the formation of the intellect. In doing this Bergson first began with instinct. Instinctive action, according to Bergson, presupposes or requires an inate knowledge of the things to be acted upon. More specifically, he means that the life cycle of such organisms as insects is not learned, but presupposes a complete and innate knowledge by the insect before the cycle begins.[1] In short, instinctive activity is a continuation of the same vital force which caused the growing development of the organism and which, in its maturity, represents the functioning of the organs of the organism in fulfilling its destiny. Instinctive activity represents another tendency of the supra-consciousness, but a tendency doomed to failure as far as the further evolving of consciousness was concerned. Instinctive activity is stopped up by consciousness and therefore is unconscious activity; intelligent activity requires consciousness and allows for the freer expression of consciousness.

Intuition, according to Bergson, cannot be pointed out or demonstrated in the evolving of organisms. But it is found in man, and can be explained in terms of instinct and intelligence, in between which, it naturally falls. Intuition contains some of the characteristics of both instinct and intelligence, but it falls closer to the former than the latter. That is, instinct and intelligence are turned in opposite directions, the former toward life, and the latter toward matter. And intuition too is turned toward life, but it is not unconscious as instinct is. It has become

---

1. The problem of "innate knowledge" will be discussed later.

"disinterested" and "reflective," and therefore conscious. But it is not reflective in the intellectual sense. Bergson never tires of saying that one can pass from an intuitive grasp of reality to a conceptual representation (with some loss of richness and depth of course), but that one can never obtain an intuitive insight into reality starting with conceptualization. It is only through the sympathetic, aesthetic, intellectual intuition that the inwardness of reality can be grasped in the full richness of its growth, freedom, and creativity.

This in summary, then, is a brief recapitulation of Bergson's philosophy, in relation, particularly, to his theory of knowledge. Whatever our final critical evaluation of his philosophy may be, it can certainly be said that Bergson has given the world an original and inspiring interpretation of reality. No finer tribute to his philosophy could be found than that written to him by William James when Creative Evolution first appeared:

> Oh my Bergson, you are a magician and your book is a marvel, a real wonder...unlike the works of genius of the Transcendentalist movement (which are so obscurely and abominally and inaccessibly written), a pure classic in point of form...such a flavor of persistent euphony, as of a rich river that never foamed or ran thin, but steadily and firmly proceeded with its banks full to the brim. Then the aptness of your illustrations, that never scratch or stand out at right angles, but invariably simplify the thought and help to pour it along. Oh, indeed, you are a magician![1]

1. Quoted from the Modern Library Edition of CE, X.

This praise is mainly in appreciation of Bergson's beautiful style, but James also goes on to predict that

> if your next book proves to be as great an advance on this one as this is on its two predecessors, your name will surely go down as one of the great creative names of philosophy.[1]

This tribute from James came at the very peak of Bergson's reputation. This immense popularity was due to two factors primarily: the first was the beauty and persuasiveness of his style, and the second the hope he gave to those who, though tired of rationalism, still hoped for a spiritualistic universe which seemed to be denied by scientific philosophers. Bergson provided a substitute for rationalism and at the same time presented a picture of reality conforming to the religious and idealistic aspirations of man. This was sufficient to bring philosophers from the world over flocking to his lectures.

And yet, one finds in the world today very few Bergsonians as such. What was there about this philosophy which caused it to rise so brilliantly (as Bergson's own metaphor of a rocket), and then to fall back, not eclipsed, but somewhat dated even before the death of its author?

---

1. Ibid.

This question can be answered most effectively by analyzing Bergson's philosophy very carefully. In doing this it will be found that the immense popularity generated through the vividness of his style, left among critical philosophers the impression that his metaphors, though entertaining, were often unenlightening and even tended to obscure vital issues. As Bergson's philosophy was studies morecarefully, this was found to be true.

Our criticism of Bergson must be selective because of the expansiveness of his philosophy. It will be centered primarily on Bergson's concept of the intellect and intuition, and on such metaphysical concepts as matter, space, duration, etc. But most of the criticism will be directed toward his theory of knowledge.

2. Criticism of Bergson's View of Mathematics.

It has been mentioned several times that Bergson was led to a philosophical investigation of time and inner duration because he thought that mathematics could not deal effectively with continuity and duration. This also led him to be critical and skeptical of the process of the intellect. He accepted Zeno's paradoxes as indicative of a natural and eternal limitation of the intellect.

This conclusion of Bergson has been criticized, however, by many eminent mathematicians, Bertrand Russell and A. N. Whitehead in particular. Whitehead, who acknowledges a great debt to Bergson,[1] points out the source of the fallacy in Zeno's arguments:

> In his 'Achilles and the Tortoise' Zeno produces an invalid argument depending on ignorance of the theory of infinite convergent numerical series.[2]

Consider, for example, an act of becoming during one second. This act is divisible into two acts, one during the earlier half of the second, the other during the latter half of the second. That which becomes during the second half of the second presupposes that which became in the earlier half. But if the earlier half is also divided, then the latter part of this too depends upon the earlier part, and since, as Zeno pointed out, there is no logical end to the division, there can be no becoming. For, the first act must pass through an infinite series to reach even a second act. Zeno's paradox rests upon the assumption that an infinite series of acts of becoming can never be exhausted. But Whitehead denies this assumption.

> There is no need to assume that an infinite series of acts of becoming, with a first act, and each act with an immediate successor is inexhaustible in the process of becoming. Simple arithmetic assures us that the series just indicated will be exhausted in the period of one second. The way is then open for the

1. Whitehead, PR, vii.

2. Whitehead, PR, 107.

> intervention of a new act of becoming which lies beyond the whole series. Thus this paradox of Zeno is based upon a mathematical fallacy.[1]

This conclusion seems to assert that an infinite series requires only a finite time to be completed, which in fact it does. But Bergson would object that such an observation is not intellectually satisfying, since an infinite series should require an infinite time in which to be completed. But Whitehead goes on to say that

> the conclusion is that in every act of becoming there is the becoming of something with temporal extension; but that the act itself is not extensive, in the sense that it is divisible into earlier and later acts of becoming which correspond to the extensive divisibility of what has become.[2]

And this latter is very nearly what Bergson asserted when he said that an act of becoming or movement (such as raising the arm) was indivisible. So it seems that an intellectual representation of movement and duration can be found after all. Bergson almost asserts it himself when he says that the "infinitesimal calculus" is "the most powerful of the methods of investigation at the disposal of the human mind."[3]

> Modern mathematics is precisely an effort to substitute the <u>being made</u> for the <u>ready made</u>, to follow the generation of magnitudes, to grasp motion no longer from with-

---

1. Whitehead, PR, 107
2. Ibid.
3. Bergson, ITM, 51.

> out and in its displayed result, but from within and in its tendency to change; in short, to adopt the mobile continuity of the outline of things.[1]

But Bergson still is afraid that mathematics can only grasp the "outline," and not the content itself.

Bertrand Russell too criticizes Zeno's paradoxes. According to Russell, the absurdity of Zeno's paradoxes is "merely due to the verbal form in which he has stated it, and vanishes as soon as we realize that motion implies relations."[2] For example, a friendship is made out of people who are friends, not out of friendship; a geneology is made out of men, but not out of geneologies.

> So a motion is made out of what is moving, but not out of motions. It expresses the fact that a thing may be in different places at different times, and that places may still be different however near together they may be. Bergson's argument against the mathematical view of motion, therefore, reduces itself, in the last analysis, to a mere play upon words.[3]

Russell also criticizes Bergson's theory of number.[4] Russell says that Bergson confuses three meanings of number when he says it "may be defined in general as a collection of units."[5] The three meanings Bergson confuses, according to Russell are:

> (1) number, the general concept applicable to the various particular numbers; (2) the

---

1. Bergson, ITM, 51.
2. Russell, Art (1912), 340.
3. Ibid.
4. See page 13 of this thesis.
5. Bergson, TFW, 75.

> various particular numbers; (3) the various collections to which the various particular numbers are applicable.[1]

According to Russell, it is the last that is defined by Bergson when he says that "number is a collection of units," but he confuses a particular collection with the number of its terms, and this again with number in general. The confusion is important, according to Russell, because as soon as it is perceived,

> the theory that number or particular numbers can be pictured in space is seen to be untenable. This not only disproves Bergson's theory as to number, but also his more general theory that all abstract ideas and all logic are derived from space; for the abstract 12, the common property of all dozens as opposed to any particular dozen, though it is never present to his mind, is obviously conceivable and obviously incapable of being pictured in space.[2]

This is an important criticism of Bergson, for it undermines Bergson's whole conception of, and evaluation of the intellect in terms of its predominantly spatializing tendency. For Bergson the spatial form of the intellect is prior to logic itself,[3] the logic of language being derived from the deductive logic of geometry. But as we have already pointed out,[4] it is not self-evident (and Bergson seems to rest his conclusion on this) at least, that the logical relations of language are equivalent to spatial relations, though there is no doubt a

---

1. Russell, Art (1912), 335.
2. Ibid.
3. See Bergson, CE, 212.
4. See page 83 of this thesis.

similarity.

But it would seem that the laws of logic were prior to the laws of geometry. For, as Locke long ago pointed our,[1] the ability of the mind to grasp distinctions among its ideas must be a primary potentiality of the mind. The ability of the mind to recognize agreement and differences among its ideas, which does not depend as much upon quantitative or spatial relations as it does upon qualitative relations, is the basic capacity of the understanding. On this capacity rests the ability of the mind to see units, and conceive of number at all. And this must even be a possibility of organisms which do not possess intellects, if they posses, as Bergson suggests, innate "knowledge" of the objects on which they must act to complete their life cycle. This ability must be possessed even apart from any spatial representation at all.

It would seem, therefore, that Bergson was wrong in making space the primary category of the intellect. The laws of thought--identity, difference, excluded,middle--would still seem to be the most basic characteristics of the mind. Bergson's assertion that space is the form which enables the mind to make distinctions, seems to rest on a logical or qualitative basis, more fundamental than the category of space itself.

---

1. Locke, SEL, 130.

3. Criticism of Bergson's Concept of the Intellect.

This conclusion also has implications in regards to Bergson's evolutionary view of the development of the intellect. For if the laws of logic, rather than the form of space, are basic to the function of the intellect, then one must explain how this function has evolved. And it cannot be explained in terms of the adpatation of the intellect to matter, and vice versa. For, if the laws of logic are a potentiality of the mind, needing explicit formulation in conjunction with experience, then logic itself must be a latent tendency within the supra-consciousness. And this is what one would expect. It would be difficult to imagine a supra-consciousness which did not possess as an integral part of its cognitive structure the laws of thought. To make logic a derivative of the spatializing tendency of the detending consciousness, would seem to make obscure any intelligible view of the supra-consciousness, though the inability of Bergson to give a careful description of the nature of this supra-consciousness is another source of confusion. One has to infer its nature from the tendencies and potentialities which Bergson applies to it.

A closer analysis of Bergson's functional view of intelligence also reveals difficulties. The nature of intelligence, according to Bergson, follows from its function, which is to act on matter practically. Its forms may be deduced from its function. According to Stewart, "the cogency of this argument depends upon the assumption that the function may be determined apart from a knowledge of form."[1] Now, this assumption seems to be unwarranted. As Stewart says, "far from its being true that the form of intelligence may be deduced from its function, the function of intelligence reveals itself in its form."[2] The nature of intelligence comes to light in the development of its use, and in the extent to which its use can be applied. Bergson seems to have made the mistake of limiting intelligence before finding that the intelligence is actually so limited.

For example, much of Bergson's philosophy depends upon the truth of the theory of evolution. Now this theory, formulated by Darwin, was the result, if we can accept Darwin's own account, of a completely intellectual, analytic, scientific mind. Darwin himself complained that he had devoted himself so completely to the intellectual demands of science, that he could no longer appreciate art in its own form. He felt that a

---

1. Stewart, CEBP, 155. 2. Ibid.

rich part of his life had been atrophied, so to speak.

In one sense the example supports Bergson's contention that scientific thought is not compatible with aesthetic insight. But this isn't a limitation of the intellect, so much as a restriction of habit. A philosopher like Whitehead, while still a great mathematician, never lost sight of the necessity for aesthetic and cultural appreciation. In his final philosophy he attempted to synthesize the latest results of mathematics and theoretical science, with the experiences of art, ethics, and religion. In a mind like his, an intellectual restriction or decompartmentization was avoided through conscious intention.

But to get back to our original illustration, Bergson accepted (with some reservations of course) the theory of evolution as formulated by Darwin. Now this was a theory developed by the intellect, and yet it represented both the theory of creative advance as well as real duration, as accepted by Bergson himself. It is clear, therefore, that such a representation is not wholly outside the abilities of the intellect itself. That is, the extent and possibilities of intellectual knowledge cannot be determined in advance of the use of the intellect itself. Today it is increasingly apparent that there is a kind of cycle through which new knowledge passes. First, the old truths seem self-evident and the newly discovered knowledge seems at first to be a priori false on the basis of the older views (take, for example, Newton's views of space, time, and matter, and Einstein's views on these points). Then as the newer views receive more adherents and a clearer formulation they are gradually accepted as hypotheses, theories, and then established laws or fact. When the last stage is reached, then these former "hypotheses" are accepted as self-evident, and the process begins once again with new discoveries or data. Now, this is a characteristic of the intellect, but not a stultifying one. And a period of integration and crystalization of views seems to be necessary if any stability is to be reached in the search for truth. "Fluid concepts," as Bergson called them, which were too evanescent or ephemeral, would be no help to anyone, and there is a real danger in Bergson's theory of knowledge of this being true.

There is another assumption of Bergson's view of the intellect which is at least questionable. This assumption is "that the action of human beings demands only a mechanical or superficial view of the universe."[1]

---

1. Stewart, CEBP, 155.

And this view is even more difficult when an intuitive and intellectual view of matter is contrasted.

> We seem to be led to the paradoxical conclusion that the intuitive grasp of matter is, a priori, to be preferred to the intellectual view of it because the former is more useful, although the latter has been evolved the better to secure the insertion of the body into its environment.[1]

Has the supra-consciousness made a mistake in degrading itself into intelligence which misrepresents the universe in which we live?

It would seem more correct, as Bergson himself suggests, that man and his intellect represent the highest stage in the evolutionary development so far reached. And if there is further evolution it must come on the side of the intellect rather than intuition, for intuition would lead back again to instinctive and unconscious activity. But intellectual activity allows for the emergence of further consciousness. Is it reasonable to suppose that the intellect is a favorable and unfavorable mode of adaptation, as well as a superior and inferior development? Bergson has done much to show that life and consciousness is the cause of the evolutionary development and not just its product; he has emphasized the need of postulating

---

1. Stewart, CEBP, 160.

something more for the understanding of life than a play of merely mechanical factors. But when he makes the intellectual life thus developed a correlate of the material world, is he not leaving the principle of psychic evolution altogether? As Stewart puts it:

> the spectacle of evolution, when 'empirically studied,' does not 'suggest a certain conception of knowledge and also a certain conception of metaphysic which reciprocally imply each other.' The empirical study of evolution 'suggests' merely the necessity of interpreting the world from a higher point of view than the mechanical.[1]

When Bergson proposes to deduce the form of intelligence from its function, he has set out, therefore, from a too limited view of that function. It is necessary to stress that an important part of the work of intelligence is to act on matter, but that must not arbitrarily be assumed to be the sole function of the rational mind. That function in its growing completeness can be seen only in the actual fruits of its labors.

But it may further be asked whether the contrast which Bergson makes between instinct and intelligence compels us to recognize the essential limits of intelligence? Bergson contends that instinctive activity involves <u>innate knowledge</u> of objects, whereas intelligence involves <u>innate knowledge</u> of relations. Now it

---

1. Stewart, CEBP, 178.

has since been proven that the insect is not as accurate in the completion of its life cycle as Bergson contended. Dr. and Mrs. Peckham have shown that the wasp is not always unerring when it stings the larva, in which it lays its eggs, to paralyze and not kill it.[1]

And in what sense the intellect is supposed to posses inate knowledge of form or relations is not made clear by Bergson. Bergson is not a rationalist, so he probably meant to content that man's intelligence possesses the inate capacity of thinking in terms of relations, which capacity is fulfilled in actual experience. But this could hardly be called possessing an in~~n~~ate knowledge of anything. And this capacity of thinking in terms of relations is not necessarily opposed to instinctive activity, but may well indicate the source of the wider range of intelligent activity as over instinctive activity.

4. Criticism of Bergson's View of Matter.

Bergson has set for himself the problem of the genesis of matter along the lines of the genesis of the intellect. This genesis of the intellect Bergson found in the degradation of pure spirit which is ex-

---

1. See Russell's article, TCP, 237.

tra-spatial, to spatiality. He asserts that "an indentical process must have cut out matter and intellect, at the same time, from a stuff that contained them both."[1] But when Bergson attempts to describe this "cutting out" process he runs into difficulties.

Bergson says that "matter aided mind to run down its own incline,"[2] but that matter is simply "psychics inverted." Matter is what helped to determine the form of the intellect, and yet matter isn't "real" because it is only an "interruption" of the vital force and represents a conventional isolation according to the forms of the intellect. Bergson clearly tries to assert that the form of matter and the intellect have been mutually engendered. But he demands too much of each for such a solution. Matter must be an entity to oppose the life force, and to aid the mind in developing intelligence. And yet, pushed to the extreme, matter would extend itself into homogeneous space, leaving no materiality at all. But to oppose life, which is metaphysical reality, Bergson would seem to have to assert some metaphysical status to matter. And yet, life and matter are "double forms" of the supra-consciousness. Clearly Bergson is not definite on just what the exact metaphysical status of matter is. As

---

1. CE, 199.
2. CE, 202.

J. A. Gunn states,

> Bergson finds it very difficult to account for the origin of Matter, and it is not clear from what he says why the original consciousness should have made Matter and then be obliged to fight against it in order to be free.[1]

And Bergson's vivid but confusing metaphor of the formation of the material world as jets of steam escaping from a cracked kettle, is not of much help either. How can consciousness, or even vital energy condense into matter? Why should there be any opposition within the supra-consciousness at all? As Stewart says,

> There seems to be no reason at all why this original pure creative activity should ever be interrupted; and even if it does throw out so many jets, is there any reason to believe that these jets should at once begin to 'fall'?[2]

As a matter of fact, there seems to be every reason why they should continue their free ascent--their essential nature being free creative activity. And what precisely does Bergson mean when he says that matter is a movement the direction of which is opposed to that of life?" Does that mean that life and matter have started from a common point, and that, while life ascends from that point, matter descends from it?"[3] If so, it is difficult to see how they should ever oppose one another

1. Gunn, BHP, 144.
2. Stewart, CEBP, 181.
3. Ibid.

--how they would get together at all.

And finally, can one generalize from a theory of evolution on this one planet to a theory of cosmic evolution of the universe as a whole. Because the forms of life here show a tendency toward instinctive and intellectual behavior, does that mean these tendencies are the fundamental tendencies of a supra-consciousness. One may argue that the problem of the philosopher is to define the nature of reality in terms of what he finds in experience. But Bergson seems to lean too heavily on biological data alone. Perhaps that is the reason his philosophy seems so dated, while Hegel's philosophy of organic dialectic seems even today more adequate as a total view.

5. Criticism of. Bergson's Conception of the Self.

Bergson's conception of the self was discussed in the first chapter of this thesis. It was found that just as Bergson opposes matter to spirit, space to duration, science to metaphysics, so he opposes one aspect of the self to the other. The superficial aspect of the self represents the spatialized, intellectualized comment of the self which meets the outer world as a crust solidified on the surface. It is a congealed, "crytalization" of the inner sentient flow of consciousness. Bergson attempts to show how this static superficial consciousness is reached--by a relaxation or detension of the inner tension of the self. The inner self is the true reality of the self, for it represents the pure flow, or inner duration of the self in its becoming in time.

But it may well be asked by what right Bergson seized upon this inner duration of the self as representing its true reality. When most of our conscious life is in terms of the outer aspect (which perhaps is not as spatial or anti-temporal as Bergson would like to assert), it seems arbitrary to select an obscure inner aspect as the true representation of the self. And is not the division an abstraction altogether? James found, in analyzing this outer consciousness, a continual flow which is quite similar to Bergson's inner duration. Bergson's division of the self seems to be due to an illegitimate abstraction resulting from an analysis of the self. And if one pushed the distinction between the spatial and temporal forms of the self, one would be hard pressed not to distinguish two selves rather than two aspects of one self. For Bergson tends to make the opposition between space and time almost an insuperable one. It is true that this opposition is only insuperable in terms of the knowledge relationship, whereas the existential passage from one to the other is accounted for, Bergson believes, in terms of detension or inversion. But it seems that the difficulty could have been avoided, as Stewart suggests,

> by recognizing the fact that the form of intelligence is an abstraction, and that the will is likewise an abstraction. The concrete fact is the organic self, the highest type of organism which we know. The will is the energizing of this rational organism, and the form of intelligence expresses its fundamental modes of activity.[1]

It is because of these two dimensions of the self that there is permanence and change. There _is_ the continual flow or flux of consciousness, and yet there are more or less static states, and permanent concepts and universals which allow for the permanence and stability necessary for life. Bergson too recognized the need of this permanence, but he relegated it to the needs of action, selecting pure heterogeneous duration as the true reality. But again, Bergson cannot give an adequate reason for this selection. As Stewart said above, there is only the one organic self, with many dimensions of activity, two of which are permanence and

---

1. Stewart, CEBP, 200.

change, space and time, or intelligence and will.

6. Estimate of the Intuitive Method.

One of the most characteristic and fundamental elements of Bergson's philosophy is the intuitive method. It is a persistent occurrence in the history of philosophy that when one becomes impatient or distrustful of the slow prodding method of intellectual advancement, that he turn to a method of knowing that is direct and infallible. The conceptions of this method have been as different as that of Plato, Spinoza, and Bergson, and yet the motives for rejecting the intellect in favor of intuition have been very nearly the same. Intellectual knowledge is obviously imperfect limited, and this is not the most desirable state of affairs. There is, however, at times of keenest concentration, a synthetic grasp of a wide area of knowledge which gives a vision of things that is qualitatively different from that available previous to this insight. Often this insight is momentary, frag, mentary and fleeting, and yet one is left with the feeling of having penetrated further into the unknown in that momentary glimpse, than one could possibly recount in terms of discursive reflection.

It is this kind of "divine insight" which philosophers have had in mind when they opposed intuition to intellect. And intuition is, undoubtedly, a precursor of intellectual knowledge. But does this mean that it is opposed to it. For my part, I think it does not. An intuitive grasp of relations is itself the foundation of intelligence. In logic one passes through a series of intuitive insights to the conclusion. Until these insights are grasped, the meaning or significance is obscured. And what one has initially grasped intuitively and vaguely, one can later make explicit and clear by elaboration and reflection. Thus the process of attaining knowledge consists in passing from intuition to reflection and vice versa. These are not opposing methods of knowing, and there is no exclusive way to truth.

Bergson's philosophy itself is the best example of this. He was a master at analyzing the self, and such notions as time, space, and freedom. The significance of much of his philosophy rests upon this analysis--and yet, he condemns analysis as an inferior method of attaining knowledge. Or rather, as a method capable of attaining knowledge less true than that of intuition. And his philosophy too represents a significant use of the intellect. In An Introduction to Metaphysics he says

> Concepts...generally go together in couples and represent two contraries. There is hardly any concrete reality which cannot be observed from two opposing standpoints, which cannot consequently be subsumed under two antagonistic concepts. Hence a thesis and an antithesis which we endeavor in vain to reconcile logically, for the very simple reason that it is impossible, with concepts and observations taken from outside points of view, to make a thing. But from the object, seized by intuition, we pass easily in many cases to the two contrary concepts; and as in this way thesis and antithesis can be seen to spring from reality, we grasp at the same time how it is that the two are opposed and how they are reconciled.[1]

One would think Bergson was opposed to contrary concepts, and yet his philosophy abounds with them. Space and time, matter and the élan vital, intuition and intelligence, freedom and necessity, are all conceptual opposites in Bergson's system. And yet he attempts to give a reasonable support, rather than just a mere intuitive grasp of them. It is true that his metaphors attempt to convince apart from agrumentation, yet there is argumentation in Bergson's philosophy also. What is significant about his philosophy is that he was able to see the subtle shadings and vast complexity of reality,

---

1. ITM, 38.

and that he could use the methods at hand--analysis, reflection, intuition--as few philosophers have ever been able to, in interpreting and representing reality.

His philosophy and his method are not the last or final word in philosophy; and, indeed, he did not intend them to be. He hoped to formulate a philosophical method by which an ever increasing knowledge of reality was to be had. What he did, at least, was to give a vision of reality which will remain one of the significant contributions of philosophy. If the purpose of philosophers is to provide an insight into the nature of reality, then Bergson has fulfilled this purpose, in a very inspiring way.

ABSTRACT

1. There is a vitalistic reality which is external and yet immediately given in intuition.

2. This reality exists in its initial purity as a free, creative, energizing, implusive force, that Bergson calls supra-consciousness.

3. The expansion or creative explosiveness of this original impetus tends, as its psychic force is extended beyond its origin, to condense into matter and detend toward pure homogeneous space.

4. The evolution of life is one manifestation of this psychic energy in its creative struggle against matter.

5. A theory of knowledge must be formulated in relation to the creative evolving of consciousness, and also the metaphysical antitheses representing inversions of the psychical tensions of the supra-consciousness.

6. The intellect is thereby found to be one tendency of the supra-consciousness, a relaxation toward spatial representation, whose forms have been molded by the necessity of acting on inert extended matter.

7. The analytic and deductive functions of the intellect rest on its spatial form, and prevent a conceptual apprehension of the mobility, creativity, and essential freedom of reality.

8. Another tendency developed from the supra-consciousness is intuition, and by the use of intuition one can see how such metaphysical opposites as space and duration, matter and life, necessity and freedom, intelligence and intuition spring from reality as inversions of the supra-consciousness.

9. However, Bergson's initial assumption that a mathematical account of mobility is inherently incorrect, and thereby manifests a natural inability of the intellect, has been proven false.

10. Bergson's narrow restriction of the function of the intellect must be reinterpreted in terms of actual intellectual processes themselves.

BIBLIOGRAPHY

Alexander, Samuel--STD
Space Time and Deity. 2 Vols.
New York: The Humanities Press, (1920)1950.

Beck, Lewis White--Rev.(1947)
Rev. of Bergson, The Creative Mind.
Phil. Phen. Res., 7(1947), 659-661.

Bergson, Henri Louis--TFW
Time and Free Will (tr. F. L. Pogson). 4th ed.
London: George Allen & Unwin Ltd., (1910)1921.

------MM
Matter and Memory (tr. Paul and Palmer). Re-issue.
London: George Allen & Co., (1911)1912.

------CE
Creative Evolution (tr. Arthur Mitchell).
New York: Henry Holt and Company, 1911.

------ITM
An Introduction to Metaphysics (tr. T. E. Hulme, intro. Thomas A. Goudge).
New York: The Liberal Arts Press, (1913)1949.

------TSMR
The Two Sources of Morality and Religion (tr. Ashley Audra and Cloudesley Brereton).
New York: Henry Holt and Company, 1935.

------CM
The Creative Mind (tr. Mabelle L. Andison).
New York: Philosophical Library, 1946.

Blanshard, Brand--TNT
The Nature of Thought. Vol. I.
London: George Allen & Unwin Ltd., (1939)1948.

Bradley, F. H.--AR
Appearance and Reality.
Oxford: At the Clarendon Press, (1893)1946.

Hausheer, Herman--Art.(1945)
"Henri Bergson."
Ferm (ed.), EOR, 66-67.

BIBLIOGRAPHY

Capek, Milie--Art.(1950)
"Stream of Consciousness and Durée Réelle."
<u>Phil. Phen. Res</u>., 10(1950), 331-353.

Chevalier, Jacques--HB
<u>Henri Bergson</u> (tr. Lilian A. Clare).
New York: The Macmillan Company, 1928.

Dewey, John--QC
<u>The Quest for Certainty</u>.
New York: Minton, Balch & Company, 1929.

Einstein, Albert and Leopold Infeld--TEP
<u>The Evolution of Physics</u>.
New York: Simon and Schuster, (1938)1951.

Einstein, Albert--Art.(1949)
"Autobiographical Notes."
Schlipp (ed.), AEPS, 53.

Edman, Irwin and Herbert W. Schneider (ed.)--LBP
<u>Landmarks for Beginners in Philosophy</u>.
New York: Reynal and Hitchcock, 1941.

------Art.(1941)
"Henri Bergson."
Edman and Schneider (ed.), LBP, 920-922.

Ferm, Vergilius (ed.)--EOR
<u>An Encyclopedia of Religion</u>.
New York: Philosophical Library, Inc., 1945.

Feuer, Lewis--Rev.(1948)
Rev. of Politizer, <u>Une Mystification Philosophique</u>.
<u>Phil. Phen. Res</u>. 8(1948), 467-472.

Flewelling, Ralph Tyler--BPR
<u>Bergson and Personal Realism</u>.
New York: The Abingdon Press, 1920.

Gunn, John Alexander--BHP
<u>Bergson and His Philosophy</u>.
London: Methusen & Co., Ltd., 1920.

BIBLIOGRAPHY

James, William--PRA
Pragmatism: A New Name for Some Old Ways of Thinking.
New York: Longmans, Green and Co., (1907)1948.

------REPU
Essays in Radical Empiricism; A Pluralistic Universe.
New York: Longmans, Green and Co., (1909)1947.

Kant, Immanuel--CPR
Immanuel Kant's Critique of Pure Reason (tr. Norman Kemp Smith).
New York: The Humanities Press, (1929)1950.

------PRO
Prolegomena to Any Future Metaphysics (tr. Lewis W. Beck).
New York: The Liberal Arts Press, 1950.

Lamprecht, Sterling P. (ed.)--SEL
Locke Selections.
New York: Charles Scribner's Sons, 1928.

Larrabee, Harold A. (ed.)--SFR
Selections From Bergson (authorized translations).
New York: Appleton-Century-Crofts, Inc., 1949.

Mead, George H.--MTNC
Movements of Thought in the Ninteenth Century.
Chicago: The University of Chicago Press, 1936.

Nahm, Milton C.--SEGP
Selections from Early Greek Philosophers. 3rd. ed.
New York: Appleton-Century-Crofts, Inc., (1934)1947.

Patrick, G. T. W.--ITP
Introduction to Philosophy.
New York: Haughton Mifflin Company, 1935.

Penido, M. L.--MIB
La Méthode Intuitive de M. Bergson.
Paris: Librairie Félix Alcan, 1918.

Plato--Rep.
The Republic (tr. and intro. Francis M. Cornford).
New York: Oxford University Press, (1941)1945.

BIBLIOGRAPHY

Price, H. H.--PER
Perception.
London: Methuen & Co., Ltd., (1932)1950.

Russell, Bertrand--MAL
Mysticism and Logic.
London: Longman's, Green and Co., 1919.

------KEW
Our Knowledge of the External World.
London: George Allen & Unwin Ltd., (1914)1949.

------Art.(1912)
"The Philosophy of Bergson."
The Monist, 3(1912), 321-347.

Schlipp, P. A. (ed.)--AEPS
Albert Einstein: Philosopher-Scientist (tr. P. A. Schlipp).
Evanston: The Library of Living Philosophers, 1949.

Stewart, J. M'Kellar--CEBP
A Critical Exposition of Bergson's Philosophy.
London: Macmillan and Co., (1911)1913.

The Enclopaedia Brittannica, 14th ed. 24 vols.--Enc. Brit.
Chicago: Encylopaedia Britannica, Inc., (1929)1947.

Whitehead, Alfred North--PR
Process and Reality.
New York: The Social Science Book Store, (1929)1941.

Wilm, Emil Carl--HB
Henri Bergson.
New York: Sturges & Walton Company, 1914

Wolf, Abraham--Art.(1947)
"Intuition in Bergson's Philosophy."
Enc. Brit., 12(1947), 543-544.