A STUDY OF "LA DUREE" IN BERGSON

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INTRODUCTION

The content of this thesisis primarily an exposition and analysis of the philosophical development of Bergson's conception of "la duree" or duration.

We shall trace the development of this concept of time from a basic distinction between the categories of quality and quantity in the description of our conscious experience. Our ordinary notion of time, 'clock'time, Bergson argues, is actually a fabrication of the intellect, due to the spatializing activity of the mind upon the concrete flow of experience. Real time or duration, is quite unlike the concept of time formed by the intellect; duration is that fundamental changing reality in which all things participate and from which all are derived; it is a continual flow, a creative growth - basically succession and change.

As the intellect is by nature unable to comprehend living forces - our conscious experience, real change, duration - we must develop a new method - that of intuition - in order to grasp this reality. Intellect is reserved for the domain of science andintuition, for philosophy. Bergson explains in this development how

it is that language, a result of the spatializing of the mind, is largely responsible for the distortion and misunderstanding of reality - confusion between subjectivestates and objective conditions, quality and quantity, the fundamental self and the superficial self, and between space and time.

It is the nature and function of language with which I shallbe particularly concerned in the course of development.My aim in the concluding chapter is to demonstrate that the problems with Bergson's conception of time are largely a result of an incorrect understanding of language, its nature and use, and of intelligence.

CHAPTER I

SECTION I

At the outset Bergson establishes a radical distinction between quality and quantity in the description of conscious experience. This distinction is developed through an analysis of actual psychic states, and an understanding of the causes distorting the latter. He thereby penetrates to the basic nature of our selves, to consciousness in general and to the fundamental reality - duration.

The first argument put forward in Time and Free Will is to the effect that the category of quantity is not applicable to intensities of 'psychic states', to the 'region of subjective facts and unextended objects', nor to the realm of conscious experience as a whole. Bergson's immediate aim is to show that quantity is in no way applicable to the concrete multiplicity of conscious states.

We do use numerical terms to describe such experience, and moreover, we understand our experience through such categories. Both the intellectual comprehension and the language employed, Bergson argues, are in error. The significance of this error becomes clear when Bergson develops the distinction between space and real time from that between quality and quantity, and thereby analyses the activity of the intellect and the function of language.

He begins with an assertion concerning the ordinary use of

the category of quantity. Normally, the criterion used for 'greater than' or 'less than' in the case of bodies and magnitudes is that of containment. It is intelligible to speak of a particle being contained in a larger body, or a number being contained in a larger one, but it makes no sense, he argues, to speak of a weaker sensation being 'contained in' a stronger sensation. Philosophers had previously avoided the problem by distinguishing between an'extensive and measurable quantity' and an 'intensiveand non-measurable quantity' to which only the notions 'greater than' or 'less than' are applicable. Bergson retorts that if this were the case, nothing would remain common to both; the criterion for the one would not be applicable to the other. Hence quantitative terms could not be employed in both cases. The criterion itself implies that the object must be extended, that is, a material object. He enquires as follows:

> ...if a quantity can increase and diminish, if we perceive in it, so to speak, the less inside the more, is not such a quantity, on this very account divisible and thereby extended? (1)

The terms 'greater than' and 'less than' always call to mind an image of a container and something contained therein, and in the case of intensities, of the contraction and expansion of something extended. Extension is a characteristic of material objects, of objects situated spatially, and not of mental phenomena or psychic states. The tendency here has been to translate what is intensive into what is extensive, and thus to compare intensities by the relationship between the corresponding extensities.

A second solution offered is that we define the intensity of a state by the objective causes of it. Bergson replies, however, that often we are aware of the intensity of a state without knowing the

cause nor therefore its magnitude. His concern here is with our actual awareness, our immediate experience, and not what occurs at a theoretical level, as a result of mental activity. Secondly, this account would not explain differing intensities in 'deep-seated psychic phenomena', our more profound feelings, whose causes are subjective. Indeed in most cases we compare intensities without any reference to mode, number or extent of causal factors. A refined version of thistheory states that each state of consciousness corresponds to a certain movement or activity of cerebral particles, and hence that the intensity of the one measures that of the other. Bergson argues that it is possible that there is such a correspondence although it is yet to be proved. Nevertheless, this possibility is irrelevant here, for:

> ...it is the sensation which is given to us in consciousness, and not this mechanical work. (2)

The actual sensation and the mechanical activity possibly underlying it, are of two different orders, so tospeak, of experience.

Bergson next sets out to show, largely by means of description, that intensities are essentially qualitative; and then to discover why we speak of them as quantities. He classifies the entire sphere of psychic states into complex and simple ones and discusses them in turn. Within the former are included 'deep-seated' feelings, superficial states, and those intermediate states between the two. The latter include affective sensations (pleasure and pain) and representative sensations.

He proceeds with a detailed description and analysis of some of our 'deep-seated' feelings, to show that a change in intensity of

our feelings is actually a qualitative change. The progress from an obscure desire to a deep passion is described: from an isolated influence it grows until it penetrates all aspects of our consciousness and transforms most of our perceptions and memories. In commenting on this experience, he claims:

> Pure intensity is reducible here to a certain quality or shade which spreads over a more or less considerable mass of psychic states... (3)

An analysis is then given by Bergson of the emotions of joy and sorrow, ofaesthetic feelings and of moral feelings - to demonstrate that in each of these cases an increasing intensity really corresponds to qualitative change; these varying intensities are actually different feelings. The so-called increasing of intensity of pity, for instance, he describes as:

> ...a transition from repugnance to fear, from fear to sympathy, and from sympathy itself to humility. (4)

All of these 'states' discussed so far are those which do not involve a close relationship with external causes. Seldom, however, are such feelings and sensations not accompanied at least by physical symptoms or behaviour. Bergson now turns to the other extreme - cases in which the external cause of the sensation bears a close relationship with the intensity of the sensation. The case here is that of muscular effort. Bergson's aim here is the same as above. He wishes to show that with muscular effort as well, we cannot properly speak of an increasing intensity of the sensation, nor consequently can we measure the sensation. The language of quantity does not apply to such states, and if we use it, we are misled into believing that measurement is possible. Through another lengthy description he

arrives at the conclusion that when we are apparently conscious of a greater intensity at one point of the body, we actually perceive a greater proportion of the body being affected. Hence it is not a single state changing in magnitude. Further examples are given to show that a second factor is involvedin our consciousness of increased muscular effort - and that is a qualitative change in some of these sensations; for example, the transition from weight to fatigue to pain. Therefore he contends that:

> ...our consciousness of an increase of muscular effort is reducible to the twofold perception of a greater number of peripheral sensations, and of a qualitative change occurring in some of them. (5)

Thus the intensity of a superficial state, for example, muscular effort, is essentially the same as that of 'deep-seated' psychic feelings.

> In both cases there is a qualitative progress and an increasing complexity, indistinctly perceived. (6)

What is experienced is a qualitative transition rather than an increase in quantity; and as this transition, or more correctly, growth occurs, more psychic states are involved and become altered. Our language describes the experience as an increase in quantity, and not a qualitative growth.

The last to be considered are the intermediate states - between the superficial or surface states, and those he calls deep-seated. Of these he cites attention, or intellectual effort and highly emotional states such as rage. The same conclusion is reached:

> ...but superficial or deep-seated, violent or reflective the intensity of these feelings always consists in the multiplicity of simple states which consciousness dimly discerns in them. (7)

Bergson now turns to what he calls 'simple states' as opposed to the more complex ones discussed above. Such sensations, which are more or less completely dependent upon external causes, are divided into affective sensations - pleasure and pain, and representative sensations - such as light or heat. Again, we normally use the expressions 'greater than' and 'less than' in reference to these sensations, even though they are properly applicable only to extended, that is, material objects. An account is also required to explain:

> ...the presence of quantity in an effect which is inextensive, and in this case indivisible. (8)

In the discussion of the simple states, the primary reasons for this habitual confusion of quantitative factors and qualitative experience will be considered. First Bergson considers the affective states. There is a difficulty in these cases in determining in what intensity consists; we must find what is in common between the affective state of consciousness and the physical phenomena with respect to magnitude, for the quantitative factors are transferred, or imposed upon the qualitative sensation from the external conditions. Bergson hypothesizes that pleasure and pain are not just signs of what has occurred, that is 'psychic translations of past stimuli', but signs pointing to future reactions, or overt behaviour. Thus the intensity of such sensations would consist in our consciousness of movements or occurrences following the stimulus rather than that of causal factors. This behaviour is more easily determined and quantified. Thus we would estimate the intensity of a pain by the extent of the organism involved - by the extent of bodily parts which sympathize and react. The increase in intensity would then be an increase in the number of sensations

affected or involved. Differences in sensation would only be considered quantitative differences when account is taken of these subsequent reactions: otherwise pain intensity would be purely qualitative. In a similar manner the intensities of pleasure are compared primarily by bodily inclination.

In some cases of representative sensations as well, there is an affective element which allows us to estimate intensity by means of the forthcoming reaction. In a few instances of purely representative sensations, for example, intense heat, as soon as the external stimulus reaches an upper or lower limit we are incited to actions which enable us to measure it. In the majority of instances, however, for example the pitch of a note or the saturation of a colour, we estimate intensity without there being any overt reaction. Here there is another factor which enables us to make this determination. We perceive the external cause, which is extensive and therefore measurable and -

> ...we thus associate the idea of a certain quantity of cause with a certain quality of effect; and finally, as happens in the case of every acquired perception, we transfer the idea into the sensation, the quantity of the cause into the quality of the effect. (9)

Thus intensity becomes a magnitude. The intellect represents it as such and in our language we perpetuate the error. For the sensation of sound, for instance, we estimate intensity by the expenditure of effort required to produce a similar effect; and the pitch of a note, actually a pure quality, likewise by either the muscular effort producing it or the vibrations which explain it. In either case, numerical terms are transferred from the latter to the former. Concerning what he has established with respect to both representative and affective sensations Bergson concludes as follows:

> ...the magnitude of a representative sensation depends on the cause having been put into the effect, while the intensity of the affective element depends on the more or less important reactions which prolong the external stimulations and find their way into the sensation itself. (10)

The same factors are at work, only to a smaller extent, on the more complex states discussed above. With our deeper feelings and emotions it is also the arbitrary divisions established (imposed by the mind) within this gradual transition which incline one to think of an increased intensity of the same feeling rather than an alteration in nature. Our reflective mind sees such change only as a greater magnitude, remaining distinct from the other aspects of our consciousness; that is, when we reflect on the experience we see it in terms of magnitude, where in fact there is neither multiplicity, extended objec ts, nor space - but rather a change of quality. The intellect deals with experience in certain ways and patterns, following a specific function which language serves as well; we shall see how that function limits both spheres of use.

Bergson then very succinctly states that the 'increase of sensation' should rather be called a 'sensation of increase'. In the former the sensation is quantitative; in the latter, qualitative. Therefore when we speak of increasing sensations or greater feelings, we are stating false information concerning our actual experience. What is given to us, so to speak, in immediate experience, that is, what we experience prior to judgment or intellectual activity, is of a purely qualitative nature; to refer to this experience as quantitative is misleading if not mistaken.

Bergson thus argues at length against psychophysics - the attempt to measure our sensations of light; he claims that all such endeavours are futile for quality and quantity are confused and qualitative factors are inevitably eliminated. Bergson's criticism focuses on a typical experiment in psychophysics - that of Delboeuf; he considers the most important methods employed to avoid or solve the difficulty (Fechner's solution) and demonstrates why the endeavour is impossible in principle.

In Delboeuf's experiment, an observer perceives three shades of gray; A and C denote two constant shades, and B, one that is changing. B changes until a point is reached when the observer claims that the contrast AB is equal to the contrast BC. Bergson questions whether one can correctly consider these sensations to be equal, without being identical. (11) He then proceeds to explain how it can be said that a sensation of a certain intensity is at an equal distance from two others. An experiment is conducted with the reader: we are asked to assume that from a continuously increasing source of light we observe all the different colours of the spectrum. As our sensations would be (more or less) discontinuous we could keep account of the number of different shades between any two colours, say A and B, and hence determine whether or not this number is equal to that between B and C.

What has been accepted here is the postulate fundamental to psychophysics - Weber's law or a variation of it. According to this law, if a distinct amount of stimulus produces a certain shade of sensation, then to change this shade, a definite amount of stimulus is also required. This is not a constant amount, and must therefore be a function of the

original stimulus. What is to be contested here, according to Bergson, is the passage from a 'relation between the stimulus and its minimum increase' to an equation connecting the 'amount of sensation to the corresponding stimulus'.

Fechner recognized this problem but did not consider it to be insoluble. He realized that the 'equality' of two sensations and 'addition' with respect to them had to be defined. Fechner began by calling these minimal differences of sensation by the same name. Each of these 'minima', he states, 'corresponds to the smallest perceptible increase in the external stimulus'. (12) Thus setting aside qualitative differences, they can all be considered identical in virtue of the fact that they have the common character of being 'minima'. Thus a particular sensation would be obtained by the addition of these minimum differences previously passed through. In this very starting point, Bergson retorts, the questionable assumption is accepted.

All that one actually perceives is a different sensation from the previous one; the original state has changed from S_1 say, to S_2. We are not even aware of the interval in the transition - how then are we entitled to call it an arithmetic difference? Although we pass from one shade to another by 'leaps', and the number of these intermediate shades may be equal in the two cases, we cannot state, that is we do not know, that these leaps are magnitudes. If S_1 and S_2 were given numerically one could assert this quantitative difference. We only perceive, however, the two simple qualitatively distinct sensations, and pass from one to the other. We do not perceive the interval:

> And what, then, can the transition from the first state to the second be, if not a mere act of your thought, which arbitrarily and for the sake of the argument,

> assimilates a succession of two states to a differentiation of two magnitudes? (13)

Bergson contends that without actually being identical, these sensations cannot be taken asequal. His explanation is as follows:

> Undoubtedly in the physical world equality is not synonymous with identity. But the reason is that every phenomena, every object, is here presented under two aspects, the one qualitative and the other extensive: nothing prevents us from putting the first one aside, and then there remains nothing but terms which can be directly or indirectly superposed on one another and consequently seem to be identical. Now this qualitative element, which we began by eliminating from external objects in order to measure them, is the very thing which psychophysics retains and claims to measure. (14)

To measure the quality by a physical magnitude supposedly underlying it, is to presuppose that the former is a function of the latter. We may conventionally measure sensation of heat by temperature degrees. The aim of psychophysics in this case, however, is to see how sensation of heat varies with temperature change; the convention is rejected. Two sensations are called equal when the qualitative factors are eliminated and what remains are equal. The qualitative difference, however, is all that we are aware of; nothing remains 'in consciousness' when this is eliminated. Moreover it is just this qualitative element that psychophysicists claim to be measuring.

The tendency from both a scientific and a non-scientific, or common sense point of view, has been to interpret qualitative changes of colour as quantitative. In order to interpret quality as quantity and what is unextended as extended. this assimilation must be admitted to be conventional. Psychophysics is a particular example of a general confusion in scientific and intellectual thought between quality and quantity, between sensation and stimulus - thus the determination to

measure one as the other. This habit, however, is certainly not peculiar to psychophysics alone:

> As speech dominates over thought, as external objects which are common to us all, are moreimportant to us than the subjective states through which each of us passes, we have everything to gain by objectifying these states, by introducing into them, to the largest possible extent the representation of their external causes. And the more our knowledge increases the more we perceive the extensive behind the intensive, quantity behind quality; the more also we tend to thrust the former into the latter, and to treat our sensations as magnitudes. (15)

Thus Bergson criticizes even those who apeak about the intensive magnitudes of psychic states, including statements that a sensation is stronger or weaker than another - for the next logical move is to ask by how much, and immediately a quantitative relation is established. We therefore cannot apply the conceptions 'greater than' or 'smaller than' to things or states which do not admit the relation "container-contained'.

> Either sensation is pure quality, or if it is a magnitude, we ought to try to measure it. (16)

Bergson has now established that individual psychic states - sensations, feelings, emotions, are given, or immediately experienced as qualitative; thatis, the category of quantity does not apply to psychic states in their immediacy, even though are language indicates otherwise; and secondly, that psychic states, as those observed and described are essentially interpenetrating. It is subsequent to this, at a secondary or reflective level that they are interpreted as quantitative owing to certain external influences and the activity of the intellect. The notion of intensity is judged in the case of representative states by means of the confused multiplicity of psychic phenomena involved,

and in the case of affective states through an estimate of causal magnitudes. In demonstrating the basically qualitative nature of our conscious experience, Bergson is pointing to a more fundamental reality in which our consciousness participates. Similarly, the imposition of quantity on our changing psychic states, the distorting effects of language and the errors in scientific methodology, indicate an activity countering the basic movement of this reality.

Now the question to be considered by Bergson is in what this concrete multiplicity of states consists and whether, taken all together - the multiplicity of psychic states as a whole - bears any resemblance to that of units in a number; that is, whether the notion of number is applicable to this multiplicity. Bergson thus determines the effects of external conditions on this 'form of duration', the multiplicity of conscious states, and thereby penetrates to the fundamental nature of duration, or real time.

> And in the same way as we have asked what would be the intensity of a representative sensation if we did not introduce into it the idea of its cause, we shall now have to enquire what the multiplicity of our inner states becomes, what form duration assumes, when the space in which it unfolds is eliminated. (17)

SECTION II

With the fundamental distinction partially established between quality and quantity, Bergson is now in a position to show the corresponding distinctions between the multiplicity of juxtaposition and the multiplicity of interpenetration, and hence between time as quality

and time as quantity. Through an investigation of the formation of the notion of number, the nature of intellectual activity is revealed more precisely. We are then in a position to determine the nature and function of language generally as operating in accord with the intellect for specifiable ends.

The first argument is one of the most important for the establishment of his thesis concerning duration. This is to the effect that the concept of number implies that of space; that is, quantity implies spatiality. This proposition can be seen as an extension of conclusions drawn with respect to the intensity of psychic states. The qualitative factors experienced were interpreted as quantitative owing to the imposition of external conditions on subjective states. The external conditions were objective and material and therefore measurable states of affairs. In contrast, psychic states are essentially qualitative, interpenetrating and non-measurable. It would appear, then, that in order to be quantified, an object or state must be objective and material, that is, situated spatially.

Bergson develops his argument here, however, from a different premise. A general definition of number is given as a starting point. Number is taken to be a 'collection of units' or 'the synthesis of the one and the many'; the many, as it is a collection of units or parts that can be considered separately, and the one, as it is a synthesis of these units - as it is 'brought before the mind by a simple intuition and is given a name'.(18) When number is taken to be a collection of units, these units are assumed to be identical, at least for the purpose of being counted. The idea of number therefore implies an

intuition of a multiplicity of units that are discrete and identical. The reader is asked to consider an example, a flock of fifty sheep. We are told to forget the actual sheep and retain only the idea; we therefore have an image of the sheep in isolation from the reality in which they are perceived. If we retain the idea, then either we have the fifty sheep all in the same image, and thus side by side in an ideal space; or we have an image of one sheep repeated fifty times in succession. If the latter were the case, we would necessarily retain the successive images, for if not, we would always have only one sheep. When retained, they must be set side by side; this juxtaposition would inevitably take place in space and not in time or duration. With such particular instances, Bergson claims, the question is not open to dispute:

> In fact, it will be easily granted that counting material objects means thinking all these objects together, thereby leaving them in space. (19)

The debatable issue is whether this intuition of space accompanies abstract number as well. Bergson answers this question by reviewing the forms the idea of number has assumed since childhood. Originally there were material objects held in mind, then these diminished to mere points, and finally the image disappeared entirely, leaving 'abstract' number. Bergson thereby deduces that:

> ...at this very moment we ceased to have an image or even an idea of it: we kept only the symbol which is necessary for reckoning and which is the conventional way of expressing number. (20)

He continues as follows:

> ... as soon as we wish to picture number to ourselves and not merely figures or words, we are compelled to have recourse to an extended image. (21)

We must note what is implied in these two statements concerning symbols, figures and words; and that is, an inadequate capacity to communicate or even express reality. In the case of numerical figures the issue is not clear; with respect to words, we are led to the larger question concerning the capacity of language in general.

What leads to the misconception here is the fact that we do habitually count in time rather than space, and thus we do count moments of duration rather than points in space. We can only do so, however, by means of points in space; if we were just counting in time, there would be only a succession and not an addition. To perform this addition the 'units' must be isolated or distinct, that is, juxtaposed rather than interpenetrating. The formation of number, or addition, implies this isolating activity on the part of the intellect; for the single unit, e.g. the sheep, must be 'cut out' or isolated from the qualitative becoming of reality that we experience. The formation of number is, in this sense, a result of the spatializing activity of the mind. The instants of duration could not be retained so as to form the sum.

> For though we reach a sum by taking into account a succession of different terms, yet it is necessary that each of these terms should remain when we pass to the following, and should wait, so to speak, to be added to the others: how could it wait if it were nothing but an instant of duration? And where could it wait if we did not localize it in space? (22)

Bergson admits that the mental image would seldom come to mind except in the learning process, but nevertheless holds that a clear idea of number does imply a visual image in space.

Bergson arrives at the same conclusion by examining the units

which make up a multiplicity. As stated above, every number is a unit in the sense of a synthesis, and a multiplicity of units as well.Thus we have two types of unit: that which themind considers to be ultimate - out of which numbers are formed by addition, and the provisional one - the number so formed. The only way we can divide either unit into as many fractions as we please is that we implicitly regard each as an extended object situated in space. In the process of forming or constructing a number - the intellect considers the constitutive elements to be indivisible; that is, number 'inprocess of formation is discontinuous'. (23) However, as we unite these 'indivisible' units, number so formed assumes the characteristic of continuity - like a series of mathematical points which merge to form a line. Thus objectified, we consider numberto be indefinitely if not infinitely divisible.

> The unit is irreducible while we are thinking it and number is discontinuous while we are building it up: but, as soon as we consider number in its finished state, we objectify it, and it thus appears to be divisible to an unlimited extent. (24)

Thus number, when formed becomes 'invested' with the continuity of space. This would not be possible, Bergson contends, unless number were originally thought of as juxtaposition in space, if space was not necessarily the medium the mind required to form the concept of number. Having arrived at this conclusion, Bergson develops the thesis to prove that the concept of quantity, and reciprocal externality of parts are characteristic of space alone, and not of time.

The next step in Bergson's argument, therefore, establishes the multiplicity of conscious states as distinct from that of material objects. We have, asa given, the premise that quantity implies spatiality. Thus

whatever objects are not already located in space and external to one another, mustbe symbolically represented as so doing, in order to be counted. It is clear from the previous section, that our psychic states are not exterior to one another, being essentially interpenetrating, and are not located spatially. The formation of number could not have resulted from the pure succession of our psychic states. There are qualitative distinctions within this succession, but there is also continual interpenetration. The formation of number requires the establishment of discrete units, one object exterior to the next. Real time, Bergson contends, cannot without distortion, be divided into such units or parts. Hence to count this multiplicity would require a symbolic spatial representation. (25)

Bergson illustrates this point by considering our perception of a bell sounding at a distance. He examines how the successive gongs are counted. There are two alternatives, he claims, The first is that the successive sensations are retained and combine with one another to form an overall impression or rhythm, in which casethe impression is purely qualitative. The second is that the sensations are consciously counted and thus must be separated and 'spread out' in some homogeneous medium. The medium here would be either time or space. The former must be rejected for the following reason:

> But a moment of time cannot persist in order to be added to others. If the sounds are separated, they must leave empty intervals between them. If we count them, the intervals must remain though the sounds disappear: how could these intervals remain, if they were pure duration and not space? (26)

The medium, therefore, must be space.

The same, Bergson generalizes, would hold for the multiplicity

of all our sensations, feelings and other psychic states - to be counted they must be distinguished from one another and symbolically represented in space. The elements of the one type of multiplicity can be counted as they are given. The 'elements' of the other must first be symbolically represented. The conclusion to be drawn is that there must be two types of multiplicity - that of juxtaposition and that of interpenetration:

> ...that of material objects, to which the concept of number is immediately applicable; and the multiplicity of states of consciousness, which cannot be regarded as numerical without the help ofsome symbolical representation, in which a necessary element is space. (27)

Bergson points out that the distinction between what is material and what is not material is the same as that between the two types of multiplicity. When we habitually (and mistakenly) attribute impenetrability to matter, we are distinguishing it from what is not material. This is essentially the same distinction as was made between extended objects -

> ...where the conception of number is immediately applicable, and states of consciousness, which have first of all to be represented symbolically in space. (28)

Now Bergson has reached a position from which he canexplain our ordinary conception of time, and how duration differs from it. Such a symbolic representation would alter our conception of conscious states. Just as representative sensations, in themselves purely qualitative, become quantitative when seen through external conditions, so our psychic states are altered from our immediate perception or awareness of them - to form a discrete spatial multiplicity. We generally think of time, Bergson claims, or it is represented by our reflective consciousness, as the medium in which conscious states appear as discrete elements. This is indicated by our ordinary temporal language. So

Bergson asks:

> Would not time, thus understood, be to the multiplicity of our psychic states what intensity is to certain of them - a sign, a symbol, absolutely distinct from true duration? (29)

If we consider what is immediately given in consciousness, we see that the multiplicity of conscious states does not resemble numerical multiplicity, that duration has nothing to do with space. The following must then be the case:

> For if time, as the reflective consciousness represents it, is a medium in which our conscious states form a discrete series so as to admit of being counted, and if on the other hand 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. (30)

If 'time' is the medium in which conscious states are counted, and if counting is necessarily counting in a spatial medium, then this 'time' as represented by the intellect, is space. Thus if the intellect describes time and succession in spatial symbols, then pure duration must be something different.

The argument here is as follows, with two premises, aconclusion and a corollary:

> Our intellect represents time as the medium in which our conscious states are counted.
>
> The medium in which we count is necessarily space.

Therefore:

> Time, as conceived by the intellect is space.

And:

> Real time, duration, must be something other than that conceived by the intellect.

The form of the argument is valid and the corollary does logically follow from the conclusion. Real time is in fact radically different

from the conception of time possessed by the intellect. After a brief explanation of Bergson's conception of space, we will turn to a more comprehensive examination of pure duration.

SECTION III

Bergson then turns to an analysis of our conception of space as a homogeneous medium, and of the genesis of time, also conceived as a homogeneous medium; he thereby determines the nature of real time, from which the latter was formed. He begins by comparing the Kantian conception of space with that of the empiricists. The former is outlined as self-sufficient, and a reality in itself, although differing in order from sensations. The empiricists' space is taken to be an attribute or derivative of physical qualities, an abstraction. Bergson contends that the latter, the empiricists' conception of space does not differ in any essential respect from that of Kant. The empiricists claim that we come to form a notion of space by means of sensations that are unextended; that extension results from their synthesis, or rather their co-existence. This, like Kant's concept, requires an act of the mind. Even if it is assumed that extension is really a relation between non-extended things, the association of these terms and the establishment of the relation, require a synthesizing act of the mind. This act consists in -

> ...the intuition or rather the conception of an empty homogeneous medium. For it is scarcely possible to give any other definition of space: space 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 quantitative differentiation, and consequently it is a reality with no quality. (31)

The homogeneous medium is thus defined as a "simultaneity of terms, which, although identical in quality, are yet distinct from one another."(32)

What is given to the mind as 'qualitative heterogeneity', that is, our conscious experience of sensible qualities, is perceived by it under the form of 'extensive homogeneity'. Although in one way the objects we perceive are distinct from one another with specific properties peculiar to each, an object cannot properly be considered as separate from its environment or isolated from the surrounding objects. We know the reciprocal effects one object has on another, from the laws of the material world, and hence that an object is not as discrete as we normally consider it to be. The fact that we do tend to isolate the object is due to the fact that perception is not disinterested:

> Such is the primary and most apparent operation of the perceiving mind: it marks out divisions in the continuity of the extended, simply following the suggestions of our requirement and the needs of practical life. (33)

These (the needs of practical life) we shall see as the root cause for the nature and limitations of the intellect and language in general. In order to make such divisions our mind must consider that this reality is divisible at will. Hence we impose on the basic continuity a kind of arbitrary network - to be divided according to our activities and needs.

> ...this substratum, which is merely conceived, this wholly ideal diagram of arbitrary and infinite divisibility, is homogeneous space. (34)

What we experience concretely is continuous qualitative diversity -

heterogeneity. Bergson calls our conception of a homogeneous medium (a kind of reality as well):

> ...a kind of reaction against that heterogeneity which is the very ground of our experience. (35)

It is within this 'space' that the human intellect is able to make distinctions, count and abstract.

Now, if homogeneity is defined as the absence of all quality, then there could not be two such distinct mediums. So it is that every homogeneous and unlimited medium will be space. However, time is usually considered to be such a medium, namely that in which things follow one another rather than co-exist. According to Bergson:

> ...when we make time a homogeneous medium in which conscious states unfold themselves, we take it to be given all at once, which amounts to saying that we abstract it from duration. (36)

The exteriority of material objects, he continues, arises from the fact of this spatial medium which 'inserts intervals' between them, and between objects and ourselves. Exteriority is not a mark of conscious states which, 'even when successive, permeate one another'. Thus if follows:

> We may therefore surmise that time, conceived under the form of a homogeneous medium, is some spurious concept, due to the trespassing of the idea of space upon the field of pure consciousness. (37)

Moreover, if two forms of a homogeneous medium are accepted, it must be established whether one can be reduced to the other. Externality distinguishes spatial things and not states of consciousness; the latter are only conceived as external to one another when represented spatially. If then, one of the two alleged forms of the homogeneous medium can be derived from the other:

> ... we can surmise a priori that the idea of space is the fundamental datum. (38)

Homogeneous space and homogeneous time are neither properties of objects nor conditions for knowledge of them:

> ...they express, in an abstract form, the double work of solidification and of division which we effect on the moving continuity of the real... (39)

- the result, again, of the spatializing activity of the mind, which is necessary in order to prepare for our action on matter.

SECTION IV

Pure duration is quite unlike the spurious conception of time formed by the intellect. it is rather:

> ...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. (40)

The past and present states permeate and qualitatively affect one another to form an organic whole. The living being, as this organic whole, is compared to a melody. If one note is mistakenly prolonged we are aware of the error by a qualitative and not a quantitative change. This analogy is offered to show that we can conceive of succession without absolute distinction - a succession of interpenetration and interconnection of parts such that each represents the organic whole, and can only be isolated by abstract thought. This Bergson believes, would be our experience of duration if we had no idea of space. (41)

The melody is heard as a rhythmic harmonious whole, so that the notes are not discrete elements; that is, they cannot be altered without qualitatively affecting the whole melody. Yet they must remain qualitatively distinct, or the notes would merge with one another to form a disharmonious whole. (42) There similarly must remain some qualitative distinction among states of consciousness - which is possible to maintain while asserting the interpenetration of states. Moreover, without certain distinctions, all would be given at once - as homogeneity rather than heterogeneity. As each state reflects the whole, it would be a spurious procedure ever to consider a single state in abstraction or isolation. Yet the language with which we describe our psychic states does portray them as isolated, fixed and static. Words and symbols, according to Bergson are essentially bound to do so; they can never adequately represent succession nor duration. We shall turn to a more detailed explanation of these limitations of language in the following chapter.

As we do have an idea of space, Bergson proceeds, we inject it into pure succession, express duration in terms of extension, and succession becomes that of elements alongside one another. Thus the contradiction inherent in this conception of time is noted:

> Note that the mental image thus shaped, implies the perception, no longer successive, but simultaneous, of a before and after, and that it would be a contradiction to suppose a succession which was only a succession, and which nevertheless was contained in one and the same instant. (43)

Bergson asks if we can even speak of an order of succession in duration; for to assert order one must first distinguish elements and perceive them as distinct and simultaneous.

> In a word, we set them side by side, and if we introduce an order in what is successive, the reason is that succession is converted into simultaneity and is projected into space. (44)

Hence even the idea of a certain order of succession in time implies a representation of space. Rather than appearing discretely 'in order' in consciousness, sensations, feelings and all psychic states add themselves 'dynamically' in consciousness.

> ...pure duration might well be nothing but a succession of qualitative changes, which melt into and permeate one another, without precise outlines, without any tendency to externalize themselves in relation to one another, without any affiliation with number: it would be pure heterogeneity. (45)

Our perception of an oscillating pendulum is described to demonstrate the wholly qualitative nature of pure duration, and further to show how the spurious conception of time arises. We are asked to consider the pendulum completing sixty oscillations and thereby beating sixty seconds. If we picture them all at once, that is, in a single perception, they would only be one at a time - hence there would be no succession or duration. Now if the preceding oscillations are recollected along with the present one, then either the images are pictured side by side and we have the first case again, or, they permeate one another, like the notes of a tune -

> ...so as to form what we shallcall a continuous or qualitative multiplicity with no resemblance to number. (46)

This is what is meantby pure duration, which is neither a homogeneous medium nor a measurable quantity. The sounds are perceived as qualitative, 'by the rhythmic organization of the whole'. If this were not the case Bergson explains, we could not account for the fact that regular

oscillations of the pendulum make us sleepy. Hence it must be the qualitative effect that we experience.

If, Bergson continues, intensities of sensations, such as those caused by the pendulum, can be considered magnitudes, then pure duration would be among the intensive magnitudes. Bergson has previously shown, however, that such intensities cannot properly be called magnitudes.(47) As psychic states are basically qualitative, the notion of number cannot apply. Duration is really nothing but

> ...the melting of states of consciousness into one another, and the gradual growth of the ego... (48)

If this duration is 'real' time, what is the time measured by the physicist, or 'clock' time? What is the time to which we refer in our ordinary language? Bergson argues that what is normally called measuring time is merely counting simultaneities. If we consider the pendulum oscillating independently of someone's perception or awareness of it, all that would ever be present would be single oscillations, single positions and therefore no succession and no duration. Secondly if we consider the ego independently, allthere would be is heterogeneous duration.

> Thus, within our ego there is succession without mutual externality; outside the ego, in pure space, mutual externality without succession: mutual externality since the present oscillation is radically distinct from the previous oscillation, which no longer exists; butno succession, since succession exists solely for a conscious spectator, who keeps the past in mind and sets the two oscillations or their symbols side by side in an auxiliary space. (49)

Bergson thus explains how it is that we come to form mistaken ideas about external reality as well as conscious life. A kind of interchange takes place between the pure succession andthe pure externality.

We habitually set up the distinctions, applicable to external objects, within the successive moments of our conscious life.Thus we have the mistaken idea of an inner duration with distinct and identical moments following one another. Likewise we attribute real succession to the oscillations of the pendulum. In this complex interchange:

> There is a real space, without duration, in which phenomena appear and disappear simultaneously with our states of consciousness. There is a real duration, the heterogeneous moments of which permeate one another; each moment, however, can be brought into relation with a state of the external world which is contemporaneous with it, and can be separated from the other moments in consequence of this very process. The comparison ofthese two realities gives rise toa symbolical representation of duration, derived from space. Duration thus assumes the illusory form of a homogeneous medium, and the connecting link between these two terms, space and duration is simultaneity, which might be defined as the intersection of time and space. (50)

This passage is meant to explain the origin of our spurious conception of time, the reason why we make unwarranted distinctions within duration, and attribute duration to external phenomena. The concept of time formed from this 'mingling' or 'comparison' is really only simultaneity. Yet Bergson has not adequately explained howthe 'comparison' of these two disparaterealities, or their 'intersection' occurs - either within an individual's psychological development or in human history. Moreover, in an attempt to explain this origin, this concept of time is presupposed. The explanatory case is the pendulum. An oscillation of the pendulum is said to occur at the same 'time' as a phase of our inner succession, as duration; hence the moments of the one are superimposed on the latter. The phrase 'at the same time' entails a distinction between at least past and present; that is, consciousness of simultaneity involves an awareness of past and

future or before and after - an awareness of temporal distinctions. It is just such distinctions within duration which Bergson is attempting to account for.(51)

Bergson claims that it is partly due to the phenomena of motion that such an interchange takes place, and that the essentially qualitative multiplicity of our conscious states appears to the reflective mind as a quantitative multiplicity. When we speak of motion as being homogeneous and divisible, it is the space traversed we are referring to, rather than the motion itself. The symbols for motion, used in the sciences similarly represent only the space traversed. Motion is not an object to be dealt with, but a progress; a process which occupies duration and space only in reference to the successive positions of the moving object. The process itself has reality only for a conscious observer. When we are not thinking of the positions occupied by a moving object, that is, of the space involved, a movement for consciousness is a quanitative sensation. There are thus two elements to be distinguished in motion - the space traversed, a homogeneous quantity, and the act by which it is traversed; the successive positions and the synthesis of them. The same interchange occurs between these two: on the one side, "we attribute to the motion the divisibility of the space which it traverses", and on the other, we project or localize the act itself in space. He comments on this transfer:

> ...as if this localizing of a progress in space did not amount to asserting that, even outside consciousness the past co-exists along with the present. (52)

It is just this confusion between the actual motion and the space traversed that led to the paradoxes of the Eleatics. In the problem

of Achilles and the tortoise,for example, the eleatics had identified the series of acts with the underlying space. The space, but not the act, can be arbitrarily divided and reconstructed. To solve such paradoxes we need only realize that motion is wit-in duration, and duration is outside space. We must distinguish -

> ...between the simultaneous positions of the two moving bodies, which are in fact in space, and their movements, which cannot occupy space, being duration rather than extent, quality and not quantity. (53)

There is nothing homogeneous in duration except a symbolic medium, that is space; and likewise there is no homogeneous element except the (motionless) space traversed.

Bergson observes that science can only deal with time and motion by eliminating the essential qualities; from the former - duration, and from the latter - mobility. Bergson has implied throughout that the limitations of the intellect and language are due to the requirements of practical life. The inability of science to deal with time, motion and change in general, we shall see has the same root cause. Where motion is alleged to be dealt with there is only a question of simultaneity and space.

> ...the interval of duration exists only for us and on account of the interpenetration of our conscious states. (54)

One proof offered by Bergson to show that science cannot deal with this interval is the following. If all motion in the universe were to take place two or three times as quickly as it does, nothing would be changed in the figures or mathematical formulas of the sciences. Only a conscious individual would have a qualitative impression of the change. The same conclusion isderived from an analysis of the notion of velocity: the

definition of velocity, ofuniform and variable motion, consists only of the concepts of simultaneity and space. What mechanics retains of time is simultaneity and of motion, points in space. This can also be seen in the fact that mechanics is concerned primarily with algebraic equations, which do not express processes but products. No matter how small the interval take, by means of differential equations, mathematics can only deal with the extremities.

> The reason is that duration and motion are mental syntheses and not objects...although the moving body occupies, one after the other, points on a line, motion itself has nothing to do with a line...(and) duration properly so called has no moments which are identical or external to one another, being essentially heterogeneous, continuous, and with no analogy to number. (55)

So Bergson concludes that space alone is to be considered homogeneous, and is the only medium in which objects form a discrete multiplicity. There is neither duration nor succession in space; the multiplicity of successive states is real only for a consciousness which retains them within its permeating organization, and then externalizes them, sets them out in 'homogeneous time'. There is thus another form of multiplicity, a qualitative one, that of our states of consciousness. Our habitual thought processes and common language together persuade us to substitute the one for the other, and to distort the idea of a multiplicity without relation to number or space. On the other hand, when we are dealing with discrete or numerical multiplicity, the qualitative aspect is there as well. The addition of certain elements alters the nature of the original ones, that is, changes the organization of the whole. Itis only through our awareness of this qualitative change that we perceive a quantitative change.

> ...without this interpenetration, and this, so to speak, qualitative progress, no addition would be possible. Hence it is through the quality of quantity that we form the idea of wuantity without quality. (56)

Thus our concept of quantity is derived from qualitative changes in sensations; we do not experience quantity directly.

The qualitative multiplicity of our conscious states assumes the form of a quantitative multiplicity, due to the influence of external conditions, particularly the phenomena of motion. Of necessity,

> ...our ego 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 belongs to their objective causes; and thus our superficial psychic life comes to be pictured without any great effort as set out in a homogeneous medium. (57)

Such a picture becomes evidently symbolic when we reflect upon our deep-seated psychic states, and observe how they alter and affect all other states. Nevertheless the same causes at work on our 'superficial' states and sensations can penetrate to these deeper feelings and give rise to spurious distinctions among them as well.

If, by an effort, we can ignore or eliminate our superficial psychic states, we no longer perceive a homogeneous time, but feel duration as a reql quality. In dreams, Bergson claims, this fact is most evident; for in dream states our ego is cut off from artificial constructions and divisions, and our psychic states melt into one another. The event of a clock striking is given as an example of this experience in a waking state (58) The occasion is one in which the man is too absorbed to hear the clock strike, and is brough to its attention on the fourth count. The first three strokes could be

recollected, according to Bergson, but not as one following the other; rather, as an organic whole with a peculiar quality. After this first apprehension, the states may be 'spread out' and counted. The number of strokes was first perceived as a quality and not a quantity.

> ...it is thus that duration is presented to immediate consciousness, and it retains this form so long as it does not give place to a symbolical representation derived from extensity. (59)

Bergson is hence led to make a distinction between two aspects of the self. This follows from the distinction between a numerical multiplicity of consciousstates, and the qualitative multiplicity; from that between a homogeneous duration and true or heterogeneous duration. One aspectof the self is present with well-defined states, while the other is -

> ...a self in which succeeding one another means melting into one another and forming an organic whole. (60)

It is always the former, the symbolic representation of the real self, which is better adapted to our intellect as geared for action, to social life and language. A return to the fundamental self requires a supreme effort of detachment and analysis, in order to see through the precise and impersonal perceptions, emotions and ideas, and directly experience the changing confused and 'inexpressible' ones. Inexpressible -

> ...because language cannot get hold of it without arresting its mobility or fit it into its common place forms with out making it into public property. (61)

The two aspects of our self are readily apparent in consciousness. Our more impersonal surface states are more external to one another; here the laws of associationism are generally obeyed, and words are more appropriate. Our deeper more intense and personal states and ideas are interpenetrating, and cannot without distortion be established and

spoken of as independent individual elements, external to one another. This distinction between the real or fundamental self and the superficial self is so radical that theformer is the seat of free will, while the latter generally obeys necessary laws. The nature of our fundamental self is further illustrated by the manner in which we adhere to beliefs. An important belief, to which we strongly assent, must somehow 'cohere' with this fundamental self:

> ...an idea which is truly ours fills the whole of our self...and...it is incorporated in the fluid mass of our conscious state. (62)

As we move away from our basic self the states become more impersonal and thereby assume the objective form of a numerical multiplicity. Through this move we no longer experience duration, but perception occurs through a spatial medium - and a self appears, composed of distinct and separate states. When considering this secondary self, with distinct moments and ordered states, it must be recalled that this is the objective symbolic conception of the self, rather than the real living creating subject.

CHAPTER II

SECTION I

If duration is at the basis of our conscious experience, and of reality in general, and our mind or the intellect habitually distortsthis process, then another approach is required for philosophy. Similarly if our ordinary language is unable to communicate what is real, we will have to search for new modes of expression. Bergson elaborates more concretely on the nature of duration and points to the method of intuition as the key to comprehension. The inadequacies of the normal intellectual viewpoint and scientific methodology are explained; we are told that the nature of language, due to the spatializing activity of the mind is a major reason for their limitations.

With respect to our fundamental self, then, we experience not an increase in magnitude of our psychic states but rather a change in the whole complex of states; we experience intensity in relation to the multiplicity, fusion and integration of such states in an indivisible temporal process. Duration for us is first identified with this ever-changing multiplicity of interpenetrating states, the heterogeneity of an organic growth. Beneath the surface collection of clearly defined perceptions, memories, habits, and so on, we discover an incomparable flux:

> ...there is a succession of states,each of which announces that which follows and contains that which precedes it. (1)

Each state or form flows from the previous one, alwaysadding something new.

In the opening pages of Creative Evolution , Bergson elaborates on this conception of duration, or rather, intuition of duration, in an answer to the question 'what do we mean by existence with respect to ourselves?'. It is thus to our immediate experience that he appeals for his answer. The first and most obvious fact of which we are aware, he claims, is that our states - sensations, feelings, ideas - are always changing. Thechange that we experience, and in a sense that constitutes ourselves, is not a change periodically from one state to another, but rather each so-called 'state' is changing every moment. Even our perception of a static external object must differ from one moment to the next: -

> ...if only because the one is an instant older than the other. (2)

All mental states which we believe to be remaining the same, or persisting in time, are actually changing without ceasing.

Our tendency toconsider these states as distinct or discontinuous is due to the consequencesof the necessity for social activity, to the effects of language, and to the manner in which we perceive them. (3) All three factors contribute to the fact that we habitually and normally consider them as a series of separate, distinct states. The psychologist proceeds in a similar fashion by dividing the self into a series of elements and treating these symbolic expressions of the self as real component parts. As demonstrated in the analysis of

intensities of psychic states, and of genuine succession, each psychic state is interlocked with the whole self or personality, and reflects the whole; it thus cannot be isolated or detached without distorting the fundamental self. Philosophers, as well as psychologists have traditionally attempted to reconstruct the self with such elements. To do so, they have posited an unchanging 'ego' to unite the separate states. If this theoretical construct, the unchangingego, were an actuality, Bergson retorts, that is, if our self were composed of separate states with an impassive ego to unite them, there would be no duration. Such a model could only yield a static self composed of static parts, and not a self which changes, grows and endures.

> For an ego which does not change does not endure, and a psychic state which remains the same so long as it is not replaced by the following state does not endure either. (4)

With such a static model of the self, the basic fact of real time has been hidden or ignored. A picture of internal life is obtained which is well suited to the requirements of logic, language and social activity. The real self is concealed beneath the symbolic representation.

> But as regards the real pschical life unfolding beneath the symbols which conceal it, we readily perceive that time is just the stuffit is made of. (5)

Duration is just this continuous progress of the past- "which gnaws into the future and swells as it advances". (6)

Bergson makes it clear that there is no constant, passive ego, or transcendental 'I' beyond or below this continuous flux:

> There is no doubt that for us time is at first identical with the continuity of our inner life. What is this continuity? That of a flow or passage, but a self-sufficient flow or passage, the flow not implying a thing that flows, and the passing not presupposing

> states through which we pass; the thing and the state are only artificially taken snapshots of the transition; and this transition, all that is naturally experienced, is duration itself. (7)

Bergson must nowexplain why it is that if the self endures then it must be constantly changing; why our psychic states change even if only because one is a little older. That there is no state of mind that is not always changing, Bergson contends, is due to the activity of memory. It is this activity which automatically preserves the past and prolongs it into the future. To each new moment in conscious life must be added the memory of all past moments, that is, each new moment in corporates the whole of ones past. As there is no consciousness without memory, according toBergson, no conscious state can remain unchanged. His metaphor here is revealing:

> My mental state, as it advances on the road of time, is continually swelling with the duration it accumulates. (8)

Bergson asserts that we know from all our experience that:

> ...the basis of our conscious existence is memory, that is, the prolongation of the past into the present, or in a word, duration,acting and irreversible. (9)

Without the past surviving into the present, all there wouldbe is instantaneity. Bergson demonstrated this previously by means of our perception of the pendulum. In order for there to be real succession rather than instantaneity or mere repetition, a conscious spectator was required. Instantaneity, as opposed to real succession, is not a fact of our existence; we do retain our past experiences. Bergson readily admits that most of our past is driven back into our unconscious. Although we have no distinct idea of it, we do feel vaguely that our past remains present to us, that it is an integral part of ourselves.

> What are we, in fact, what is our character, if not the condensation of the history that we have lived from our birth - nay, even before our birth, for we bring with us prenatal dispositions. Doubtless we think with only a small part of our past, but it is with our entire past, including the original bent of our soul,that we desire, will and act. Our past, then, as a whole, is made manifest to us in its impulse; it is felt in theform of tendency, although a small part of it only is known in the form of idea. (10)

When Bergson speaks of the indivisibility of change, of duration, of our fundamental selves, it is just this preservation of the past into the present to which he is referring:

> It is enough to be convinced once and for all that reality is change, that change is indivisible and that in an indivisible changethe past is one with the present. (11)

It is due to the fact that our past survives in the present also, that duration is irreversible. Consciousness could not experience the same state twice, nor could a person remain identically the same at different moments. Superficially only, could psychic states remain the same or recur, but never in the same depth. This can be seen from the example of thependulum. Objectively the ticks are all identical, but the sensation or qualitative effect on consciousness of the sixtieth sound clearly differs from the first.

Duration is describedby Bergson as a pure heterogeneity, as distinct from a homogeneous medium. By heterogeneity, he means this diversity of conscious states, continuous change and creation, and the necessary absence of repetition of sameness. It signifies as well that there is no constant 'ego' or transcendental 'I'.

Each moment in one's personal history must then be something new and also unforeseeable. Although a particular state, once present,

could be explained by previous states, actions and external conditions, that is not to say it could have been foreseen. In order to foresee we would have to project what has been perceived or experienced in the past into the future, or to imagine elements previously perceived arranged in a new order. First, however, as all states permeate one another, no state in its simplicity, that is, its indivisibility could ever be perceived in its very depth, and secondly, no emerging state could have already been perceived: -

> ...since it concentrates in its indivisibility all that has been perceived and what the present is adding to it besides. It is an original moment in a no less original history. (12)

This is what is meant when Bergson states that in order to be something time must 'act'. When we ask the question, 'what then is it doing?', he claims we can answer according to common sense. If there were no time, everything wouldbe given all at once; it is time which prevents this from happening. If time retards things, or is retardation, he continues, then it must be elaboration. Bergson thus asks the thetorical questions:

> Would it not then be a vehicle of creation and of choice? Would not the existence of time prove thatthere is indetermination in things? Would not time be that indetermination itself? (13)

It has been shown that all our mental states are essentially interpenetrating and each qualitatively affects the whole of our self. Hence each new activity or state will alter our personality to a greater or less extent. What we do, Bergson argues, depends to a large extent on what we are; the whole of our past is felt as an impulse or tendency when we make decisions and act. Moreover, what we

are depends on what we do, for each new state is incorporated into the self. In this respect we are continually creating ourselves. Bergson thus concludes with an answer to the original question concerning the meaning of existence for a conscious being:

> ...to exist is to change, to change is to mature, to mature is to go on creating oneself endlessly. (14)

It is here that reality is revealed to us - as a ceaselessly changing process, a growth and a creation; it is revealed through and in the flowing of our own personality or self. Absolute time or pure duration conveys the character of this process. Duration is seen to be a heterogeneous flux, an irreversible indivisible flow, a living reality, a creative evolution. Such a reality can never be communicated completely or adequately in a language by means of images or concepts, but must be directly intuited:

> ...man must get for himself the intuition of the constitutive duration of his own being. (15)

Why Bergson believes this intuition of duration cannot be expressed in ordinary language we shall consider more thoroughly later in the chapter. In the previous chapter we noted the incapacity of the intellect to grasp duration, due to its spatializing activity; the origin of this limitation will be discussed in the following chapter. We shall consider here, the actual intuition of duration rather than its intellectual or conceptual formulation.

This inner life (we assume, for the moment) is impossible to represent by concepts, by abstract general or simple ideas. Concepts cannot express the process, the novelty, the creation. To grasp duration in its pure state, to return to this immediate experience, we must

divorce ourselves from the intellect, from a reflective or theoretical level. An effort must be made to return to this pure experience. Bergson's description is as follows:

> Let us seek, in the depths of our experience, the point where we feel ourselves most intimately within our own life. It is into pure duration that we then plunge back, a duration in which the past, always moving on, is swelling unceasingly with a present that is absolutely new...our feeling of duration, I should say, the actual coinciding of ourself with itself, admits of degrees. But the more the feeling is deep and the coincidence complete, the more the life in which it replaces us absorbs intellectuality by transcending it. (15)

As we make such an effort, Bergson continues, we can feel or sense the interaction of our various psychic states and the activity of consciousness as this whole, as a free activity.

> The more we succeed in making ourselves conscious of our progress in pure duration, the more we feel the different parts of our being enter into each other, and our whole personality concentrate itself in a point or rather a sharp edge, pressed against the future and cutting into it unceasingly. It is in this that life and action are free. (16)

It is thus when we act on the basis of our real or fundamental self that we are free. (17) When we do this, when we 'replace our being into our will, and our will into the impulsion it prolongs' (18), we know, understand and feel, that reality is a perpetual growth or creation. This creation is not a mysterious activity; we experience it ourselves whenever we act freely. Creative growth is the fundamental fact of our real selves, of existence for a conscious being as well as for life in general. (19)

It is this fundamental fact of our experience, of existence, which is distorted as the intellect, geared to the necessities of action, perceives of essential change only immobile states, and of

duration only instants. We must rather learn to see, to experience life as given, as directly present, than with a view to action:

> Then the Absolute is revealed very near us and in a certain measure in us. It is of a psychological and not of mathematical nor logical essence. It lives with us. Like us, but in certain aspects infinitely more concentrated and more gathered up in itself, it endures. (20)

Intuition is what is required:

> It is of no use trying to approach duration: we must install ourselves within it straight away. This is what the intellect generally refuses to do accustomed as it is to think the moving by means of the unmovable. (21)

SECTION II

Metaphysics, or philosophy in general can only begin at the level of immediate experience, and not at a conceptual, intellectual or scientific level. Scientific or conceptual knowledge cannot comprehend the becoming or mobility, the essential nature of what is 'real'.

> ...real time, regarded as a flux, or in other words, the very mobility of being, escapes the hold of scientific knowledge. (22)

For conscious beings, itis what is becoming, what is fluent, or mobile that first strikes us, that is real. Science takes account only of what is static, what is material. Each psychic state is a perpetual becoming, or a form of duration; by considering or treating this as an element, a stable object, scientific analysis extracts or ignores that

essential mobility or becoming. By using symbols, words, and concepts which denote only fixed aspects of reality, the same result is obtained.

We can see from the conclusions Bergson has now established why it is that the scientific method cannot be applicable to the domain of conscious experience. The major reasons are the following. Quantification is crucial for the sciences, and Bergson believes he has shown that number is not applicable to immediate conscious experience, to single states or the multiplicity. The transfer of objective causes into the conscious effect is what allows conventional measurement here. The approach in psychophysics, he contends, is typical of both the scientific and the normal intellectual method of studying the non-material realm. Subjective states are habitually objectified in this manner, and thereby the essential qualitative and interpenetrating nature of conscious states is ignored.

As quantity implies spatiality, and psychic states are non-spatial, they are not thereby subject to quantification. So duration is basically non-measurable. If it is not just conventional, measurement always implies division and superimposition; and, Bergson argues:

> ...we cannot superimpose successive durations to test whether they are equal or unequal; by hypothesis, the one no longer exists when the other appears; the idea of verifiable equality loses all meaning here. (23)

Duration, moreover, necessarily signifies creation, novelty or invention. It is this with which physics cannot deal, being limited to counting simultaneities, registering positions, andsearching for what is common in order to formulate general laws and theories. Events are dealt with in isolation, or abstracted from the whole, as are

material objects; but for duration, interpenetration and the preservation of the past prohibit this.

> It detaches these events from the whole, which at every moment puts on a new form and which communicates to them something of its novelty. It considers them in the abstract such as they would be outside of the living whole, that is to say, in a time unrolled in space. (24)

With both movement and change in general out understanding or intellect cannot cope; the intellect removes mobility from movement, fluidity from change, and duration from time. This inability is not characteristic only of the scientific method but is typical of our normal thought habits; both are limited by their common function. Normally when we speak of time, we think of the measurement of time, which proves to be space, and not real duration. It is the latter, however, which we live and feel, and which is so difficult to conceive and to express. It is to this duration that the philosopher must penetrate, to see it without space, to grasp it without turning it into a static object.

> What would direct vision give - immediate vision, with no interposed prejudices? a long series of reflections and analyses made me brush aside one prejudice after another and abandon many ideas I had accepted without question; finally I believed I had 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. (25)

To show the way to this direct vision or intuition is what constitutes the business of the philosopher; to lay down the conditions for this direct, immediate observation of oneself. (26) Intuition, for Bergson, thus refers primarily to a grasp of internal duration, of what is immediate and absolute. ThusBergson prescribes that we abandon our scientific orientation and oppose the tendency to transfer objective

factors into our conscious states; thereby we are enabled to perform this direct intuition.

> It grasps a succession which is not juxtaposition, a growthfrom within, the uninterrupted prolongation of the the past into a present which is already blending into the future. It is the direct vision of the mind by the mind - nothing intervening, no refraction through the prism, one of whose facets is space and another language, Instead of states contiguous to states which become words in juxtaposition to words, we have here the indivisible and therefore substantial continuity of the flow of the inner life. Intuition then, signifies first of all consciousness, but immediate consciousness, a vision which isscarcely distinguishable from the object seen, a knowledge which is contact and even coincidence. (27)

The main function of intuition, we stress again, is this direct vision of the mind by the mind. To think intuitively is to think in duration. (28) As mind is the proper realm of metaphysics, matter is that of science; while the philosopher concentrates on that which endures, the scientist deals with what does not endure. Thus Bergson supports the view here that science and metaphysics are two opposed but complementary ways of knowing (29) There is a difference in method but not a difference in value between the two. Furthermore, there would not be these two ways of knowing, if experience did not present itself in such different aspects:

> ...on the one hand in the form of factsside by side with other facts, which repeat themselves more or less, which can to a certain extent be measured, and which in fact open out in the direction of distinct multiplicity and spatiality; on the other hand in the form of a reciprocal penetration which is pureduration, refractory to law and measurement. In both cases experience signifies consciousness; but in the first case, consciousness unfolds outward and externalizes itself in relation to itself in theexact measure to which it perceives things as external to one another; in the second, it turns back within itself, it takes possession of itself and develops in depth. (30)

Our intellect and the scientific method begin with what is immobile; movement is reconstructed with immobile things in juxtaposition. Intuition, on the contrary, begins with movement, perceives movement as reality itself, and immobilities as merely abstract moments, like snapshots. Intelligence is concerned with things, with what is static and change is viewed as accidental. Development in science is partially the result of the use of signs which symbolize events and processes. The precision of such symbols is greater than the words in ordinary language; consequently, manipulation of them is easier and the aim of scientific endeavour, that is, action on the material world, is well served. For intuitive thinking, change is what is essential. As change cannot be expressed in such symbols, and neither in concepts, ideas must be communicated in another manner.

SECTION III

If the intellect, habitually or naturally, distorts the substantiality of change, the fundamental fact of duration, then the metaphysician must return to this fact and develop new functions of thought proper to this realm of the mind, the self or inner experience. The task of explaining matter by the intellect as it functions normally, is reserved to science.

As Bergson examined and analysed the confusion between objective external conditions and subjective experience (between space and real time, the artificial and fundamental self), he noted that language was

largely responsible for our errors. Duration,he found, was usually expressed in terms of extension (31) Philosophers have traditionally continued this practice and treated time as they have space, thus removing real duration. Time has always been interpreted in the language of space or extension, and thus dealt with as a part of the material world:

> When we evoke time, it is space which answers our call. Metaphysics must have conformed to the habits of language, which in turn are governed by the habits of common sense. (32)

It appears that scientific thought and common sense are in accord on this issue. The intellect operates in a similar fashion and rules out real time in both cases. Bergson thus asks: "might it not be because the goal of our understanding demands it?".(33)For the answer to this question, Bergson turns to a study of biological evolution; this we shall turn to in the following chapter.

What requires explanation at this point is the method of thought peculiar to metaphysics - philosophical intuition. The aim is direct participation in immediate experience, direct vision of the mind. Bergson takes it as given that this faculty of intuition, or this ability to 'see directly' exists in all men. Itexists, but is covered over and hindered by functions and ways of thought which are more useful. A supreme effort is therefore required in order to facilitate intuition.

> A whole labour of clearing away is necessary in order to open up the way to inner experience. (34)

This way of thinking is not natural and does present considerable difficulties. Bergson warns the reader that by intuition he does not

mean instinct or feeling: "...my intuition isreflection.". (35)
This labour, required for a return to experience, consists first of an understanding of what it is that conceals this experience, and secondly, how and why this is the case.

> It is this covering that we must grasp in order to tear it off. Butwe shall grasp it only if we consider first its aspect and its structure, and if in addition, we understand its intended purpose. It isspatial by nature and has a social utility. Spatiality, therefore, and in this quite specialsense, sociability, are in this case the real causes of the relativity of our knowledge. Brushing aside this veil, we get back to the immediate and reach an absolute. (36)

What is absolute, then, is to be found in pure experience. An existence, Bergson claims, can only be given in experience. (37) The experience is a vision or a contact; it is called, in the case of material objects, exterior perception; and when it has to do with the mind, intuition. Whether it be intuition, or if it involves the intellect, all thought, if it is to be expressed, requires a language. But for intuition, if the reliance is to be solely on conscious experience, the philosopher must begin by ignoring established concepts. Familiar concepts may eventually emerge, but one cannot commence a philosophical investigation with them in hand. What is grasped in intuition need be expressed and conveyed, but Bergson contends, there will never be a strictly appropriate language with which to do so. Concept and image are the only two basic means of expression in a language. (38) It is image which is the more adequate expression for intuitive knowledge.

Bergson must now explain why there is no language ever entirely adequate here, and secondly, why the image conveys the intuitive

content better than the concept.

He explains and supports his contention by determining the general function language serves, considering concepts in particular. The nature of language required to serve this purpose proves tobe completely alien to the nature of duration. All our words and concepts, he argues, may be conventional, but language on the whole is a natural phenomenon and originally servesa definite purpose. This is to establish communication with a view to cooperative action. Nature has demanded of man work in common, and in this sense has predestined us for social life. Language in general, either prescribes, that is, calls to action, or describes, that is, names an object and some of its properties. Both are functions which are oriented towards common activity.

> But in either case the function is industrial, commercial, military, always social. The things that language describes have been cut out of reality by human perception in view of human work to be done. (39)

The human intellect always acts in association with other intellects, and therefore must communicate by means of signs. What is required for this common activity is a language which allows one to pass to new or unknown things from those particular things which are known. The signs of a language must therefore be capable of being extended to an indefinite number of things - that is, general names or concepts must emerge. In this sense, Bergson refers to the sign as being mobile:

> ...what characterizes the signs of human language is not so much their generality as their mobility. (40)

Because of this mobility, words could be extended from things, material objects, to sensations, feelings, ideas and so on.

Nevertheless, Bergson argues, the word has a definite and precise meaning only when it designates a thing. When it becomes mobile, or applicable to many things it loses that meaning.

> ...the more you increase the extension of the term, the more you diminish comprehension of it. (41)

Language thereby enables the intellect, fashioned originally to matter, to extend its activity. Because of the mobility of the word, the intellect could apply it to an 'object' which is non-material. The 'object' is thereby covered over, converted into a thing, and dealt with accordingly by the intellect.

> So intelligence, even when it no longer operates upon its own object, follows habits it has contracted in that operation: it applies forms that are indeed those of unorganized matter. It is made for this kind of work. (42)

If wewere to take all our concepts together, Bergson declares, they would constitute an intelligible world, which would resemble or represent that of material objects. Our concepts are not indeed the actual perception of things, but rather represent the act of perception.(43) The concepts are thus symbols rather than images. And the logic we normally employ, is just the collection of principles or rules to follow when these symbols are used. Bergson concludes with a statement concerning the proper domain of conceptual thought:

> As these symbols are derived from the consideration of solids, as the rules for combining these symbols hardly do more than express the most general relations among solids, our logic triumphs in that science which takes the solidity of bodies for its object, that is, in geometry. (44)

It must be clear, from conclusions Bergson has drawn with respect to the multiplicity of conscious states, that such conceptual frameworks and static symbols are not properly applicable in the domain

of living beings - to duration or change in general. When science extends into the domain of conscious experience, its expressions and results become increasingly symbolic and distortive: they are relative to the contingencies of action. (45)

Progress is made inscience by just this manipulation of signs and symbols which are substitutes for the things or objects themselves. The signs in a science are actually more precise and efficient than those used in ordinary language; they too, however, are subject to the same condition as all signs, and that is: "...to denote a fixed aspect of the reality under an arrested form." (46) This is why the signs of a science and the expressions of ordinary language do not justly represent movement, change, duration.

> In order to think movement a constantly renewed effort of the mind is necessary. Signs are made to dispense us with this effort by substituting for the moving continuity of things, an artificial reconstruction which is its equivalent in practice and has the advantage of being easily handled. (47)

Bergson examines the way change is normally expressed in language to verify his thesis. Change, he claims, is normally represented as a change in qualities or properties of a substance or object. The qualities are basically stable, and their succession consists of one replacing another; likewise the substance remains unchanged. The fact of real succession or continuous change and becoming is covered and concealed.

> Such is the logic immanent in our languages and formulated once and for all by Aristotle: the intelligence has as its essence to judge, and judgment operates by the attribution of a predicate to a subject. The subject, by the sole fact of being named, is defined as invariable; the variation will reside in the diversity of the states that one will affirm concerning it, one after another. (48)

There is the absolute stability of the subject, representing the substance or object, on the one hand, and the various stabilities of the predicates, of the qualities or attributes, on the other. For purposes of communication this development of language is highly functional. The substance is allegedly invariable, so when stating the subject, the topic of discussion is precisely located, and would thus be recognized and understood by the second party. Both parties would therefore recognize the same starting-point, from which to proceed to action.

With this general formation of language we are inadvertently led to view change and movement as secondary and accidental, and stability or immobility as primary and essential. As noted above, this phenomena is not solely due to the function of language but is partially attributable to our manner of perception. As we focus attention on an event, or consider an object, we tend to cut it out, so to speak, from the continuity of extension, from the context in which it is located; we then proceed to think about it and analyse it as an isolated occurrence, an abstraction (for instance, the formation of number). We pay attention to things in a series of discrete acts and hence tend to treat the resulting divisions to the phenomenon perceived rather than the act of intention. Thus artificial divisions, isolation and stability again conceal the real continuity of experience.

The most essential fact of change which language and our intentional mode of perception conceal is that of our fundamental self. The two act together to create a superficial or symbolic self which is therefore well adapted to language and social life in general. A return to the underlying self, Bergson has stressed, is a difficult task requiring reflection and analysis - to penetrate through the superficial surface

states. The condition of the sign, as stated above, does not allow it to express or convey change, novelty or what is subjective and personal. For all our inner states, we believe we are expressing them by word designations whereas in fact, the word 'covers' the state, and conceals the change. We attribute to the actual state the fixity, the discontinuity, the generality of the words themselves. (49)

Bergson describes an event in which this effect of the use of language is most apparent. This is the familiar occurrence of a comparison of impressions created by a totally new environment, with impressions of that environment when it has become familiar. The objects originally perceived are, at the later date, still called by the same names and described in the same fashion despite the obvious change in our impressions, feelings, and so on. The impressions are solidified in order to be expressed in language. This factor, combined with the direct influence of the external objects on our changing states (as well as our perceptual activity) produces this superficial level of consciousness and the general belief in stability.

> We confuse the feeling itself, which is in a perpetual state of becoming, with the permanent external object, and especially with the word which expresses this object. (50)

The same exchange or transfer occurs with some of our more rapidly changing sensations. Taste is one; the same name is given to the sensation regardless of my taste changing - when isolated and named these sensations appear to us as objects rather than processes, as stable rather than changing.

> Not only does language make us believe in the unchangeableness of our sensations, but it will sometimes deceive us as to the nature of the sensation felt. (51)

The word or concept, according to Bergson, will yield only the stable, common and impersonal aspect of our experience - the individual conscious impressions are never expressed.

It is evident how naming, description and analysis tend to distort the real experience when we reflect upon our most passionate feelings. A profound love, for instance, is not an isolated, stable thing as our language suggests, but is rather a feeling which develops, grows, changes and lives:

> ...lives because the duration in which it develops is a duration whose moments permeate one another. (52)

When we name and anlyse such a feeling, we are in effect spreading it out in a homogeneous time and situating one lifeless state beside another. We thereby eliminate the interpenetration and the effects of such an emotion on all other psychic states. This juxtaposition of our simple states is the first condition for the application of logic to them. It is in this manner that the psychologist is led to a theory of associationism, for the self is treated as a collection of distinct independent states, each capable of being isolated. Here we see this whole procedure stem largely from our use of language. This is partly "..due to the fact that language is not meant to convey all the delicate shades of inner states." (53) Language, for Bergson, is 'meant' for another purpose, namely for common or social activity. For this purpose language must necessarily be spatial in nature. Words and concepts will then adequately express only what is common, stable, and material.

The associationist's conception of the mind would explain certain simple and impersonal states, that is, the superficial self, but fails to explain the deeper personal states, the fundamental self. Of

such states, language can only fix 'the objective and impersonal aspect'. In this sense, Bergson asserts that 'there is no common measure between mind and language'. (54)

Concepts, by their very nature, inevitably fail to grasp the essence, the uniqueness in what is directly experienced, in what is real. Philosophy must begin with what is real; and that, according to Bergson is change, movement, or duration.

> ...there never is real immobility if we understand by that an absence of movement. Movement is reality itself. (55)

Thinking, moreover, normally consists in passing from concepts to things:

> Our intellect, when it follows its natural bent proceeds, on the one hand, by solid perceptions, and on the other, by stable conceptions. (56)

Concepts of different qualities are to the real qualitative change of an object as stationary points are to real movement. Concepts into which change is analysed are therefore stable views of the instability of the real; the usual meaning of 'to think' is to take one of these views. While fixed concepts can be abstracted from the mobile reality by thought, one cannot reconstruct real mobility from fixed concepts. (57)

> ...there is more in a movement than in the successive positions attributed to the moving object, more in becoming than in the forms passed through in turn, more in the evolution of form than the forms assumed one after another. Philosophy can therefore derive terms of the second kind from those of the first, but not the first from the second; from the first terms speculation must take its start. (58)

Philosophical intuition thus requires a reversal of the usual process of thought. Philosophy cannot begin with conceptual analysis nor end in conceptual expression.

Bergson has established where philosophy must begin, that is,

with intuition; and also that what is given in intuition cannot be adequately expressed conceptually. This intuition, then, must be conveyed or communicated in some other manner. Communication, he argues, can only take place by means of the intelligence; although intuition is more than an idea, it requires ideas in order to be conveyed. The alternative, as noted above, is image, concrete ideas and metaphor. Bergson explains in the following passage why it is that imagery can here be more indicative of our experience than conceptual expression.

> Comparisons and metaphors will here suggest what cannot be expressed. That will not constitute a detour; it will amount to going straight to the goal. If one were constantly to speak an abstract, so-called 'scientific' language, one would be giving of mind only its imitation by matter, for abstract ideas have been drawn from the external world and always imply a spatial representation; yet one would think one had analysed mind. Abstract ideas alone would, therefore, in such a case, be inviting us to imagine mind on the model of matter and to think of it by transposition, that is, in the exact meaning of the word, by metaphor. Let us not be duped by appearances: there are cases in which it is imagery in language which knowingly expresses the literal meaning, and abstract language which unconsciously expresses itself figuratively. The moment we reach the spiritual world, the image, if it merely seeks to suggest, may give us the direct vision, while, the abstract term which is spatial in origin and which claims to express, most frequently leaves us in metaphor. (59)

If philosophical intuition involves a 'vision' or 'contact' with a changing reality, and concepts by their nature cannot express change, then clearly what would best point to or suggest this would be a more appropriate expression than the concept, which is literal or self-sufficient.

CHAPTER III

The first major issue that emerges at this point concerns the method delineated by Bergson, in particular with respect to the starting point of his philosophical enquiries; and that is, whether the philosophical method of intuition is perhaps restricted to an investigation of, or penetration into, one's own consciousness. A second and related question is whether duration is in fact merely a 'subjective' reality in this sense. Does the universe as a whole 'endure' and can we speak of duration or real time with respect to other living bodies and inanimate matter? Finally we must consider whether Bergson offers proof for a universal objective time, or absolute duration, or must admit that there remains the possibility of a variety of diverse mobilities of duration. Clearly the solutions to the three problems areinterdependent. To the extent which they can be considered separately, they shall be discussed in the order posed.

SECTION I

Bergson raises the first question in An Introduction to Metaphysics:

> But if metaphysics is to proceed by intuition, if intuition has the mobility of duration as its object, and if

> duration is of a psychical nature, shall we not be confining the philosopher to the exclusive contemplation of himself. (1)

This could not be the case, he replies, if we understand the essential nature of duration and the process or activity of philosophical intuition. It is only this method which enables us to go beyond both idealism and realism.

The act of intuition Bergson describes as an intellectual expansion in which one transcends the intellectual viewpoint - a sympathy of mind, a tension, which allows the subject to 'coincide' with the object. A commentator speaks of this 'coincidence' as follows:

> Our act of spirit coincides with the creative activity in the universe. The intuition, then, is awareness of something which is not ourselves which has the same rhythm or movement, thesame degree of tension, the same perfection of interpenetration of parts as we. (2)

The feeling of movement begins in the self, but then is recognized as real movement - the subjective factor is eliminated and the subject/object dichotomy vanishes. The duration we consciously experience in our selves is seen to be part of the more fundamental duration of the universe.

Bergson seems to understand 'coincidence' to be synonymous with identity; that is, that in this act of 'intellectual sympathy' the mind and that of which it isaware are one. He goes beyond the position that for intelligence (for example) to be able to comprehend reality, the latter must be intelligible, for he asserts that the mind becomes that which it knows: 'to philosophize consists in placing oneself in the object itself'. Thus the act or acts of intuition occur prior to or after

knowledge involving a subject/object distinction; we are or become that which we know. What is apprehended in this knowledge, this psychical activity, is the ultimate subject and object - itself a 'whole'. Intuition, then, is not limited to a single act of grasping the duration of the fundamental self but is rather a series of similar acts which "correspond to all the degrees of being". (3)

Bergson's explanation of the various acts of intuition corresponding to differing 'shades' of duration, is somewhat confusing at this point. If we attempt to analyse duration by means of concepts, he argues, we would arrive at one view of duration in general, from which it would seem impossible for there to be a diversity. Bergson has already explained how conceptual analysis is inadequate for philosophy, and similarly is any approach by means of ordinary language.
On the other hand, through the actual act of intuition we experience a 'certain very determinate tension', that is, a particular concrete tension, which appears to be one of a number of possible durations. Thus we are able to conceive many different possible durations. Although there is no strictly logical reason for assuming there are any diverse durations, any other than our own, we do experience our own duration as if it were part of a continuity of durations. Bergson compares this inference with a hypothetical case in which the only colour we have encountered issay, orange. If, rather than perceiving the colour externally, we 'sympathized internally' with orange, we would experience it as a tension between red and yellow; and from there the probable inference would be that those in turn lead naturally into a continuous spectrum of colour. In the same manner:

> ...the intuition of our duration, far from leaving us suspended in the void as pure analysis would do, brings us into contact with a whole continuity of durations which we must try to follow... (4)

At the one limit of this continuity, we would find pure homogeneity - "that pure repetition by which we define materiality". (5) The other limit Bergson describes as an 'eternity of life' - an extremely intense living movement, of which our own duration forms a part:

> ...an eternity which would be the concentration of all duration, as materiality is its dispersion. Between these two extreme limits intuition moves, and this movement is the very essence of metaphysics. (6)

Of this continuity, other consciousnesses form a part. The intuition is normally of ourselves; however, our consciousness is not strictly divided or separated from other consciousness, as our body is distinct from and external to other bodies in space. Evidence of interpenetration of consciousness is given through the powers of sympathy and antipathy. Bergson calls this phenomena 'psychological endosmosis' and contends that it leads us toan intuition of consciousness in general. (7)

As noted above, it is not just consciousness which admits of intuition, but the entire world of the living:

> If every living being is born, develops and dies, if life is an evolution and if duration isin this case a reality, is there not also an intuition of the vital, and consequently a metaphysics of life... (8)

Science can determine the physico-chemical nature of organized matter, but not the underlying cause or impetus for life; it is rather through penetration of consciousness that we will discover this vital impetus.

Inorganic or unorganized matter appears to be unaffected by, or outside duration; it is treated accordingly in the sciences by ordinary procedures of the intellect. Yet the material world must endure or be in some manner tied with our consciousness, our duration, for:

> ...the material universe in its entirety keeps our consciousness waiting; it waits itself. (9)

Bergson illustrates this point by the example of sugar dissolving in water; the time it takes for the sugar to dissolve is an absolute - we wait. Our duration, and matter cannot then be independent of one another.

> Whether it (the material universe) is connected with mind by its origins or by its function, in either case it has to do with intuition through all the real change and movement that it contains. (10)

Real duration or real change is something psychical, something spiritual. Intuitionseeks to penetrate into this duration and to grasp in all things, including material objects, their participation in this duration, this spirituality.

Thus an intuition into the duration of one's own consciousness will lead to a penetration into and comprehension of life, matter and reality in general. One could assert the contrary, Bergson contends, if consciousness was accidental to matter. (11) In his study and analysis of the whole evolutionary process, Bergson demonstrates how this cannot be the case. One could deny it as well if consciousness and matter were independent of one another. He maintains, however, that:

> ...the matter and life which fill the world are equally within us; the forces which work in all things we feel within ourselves: whatever may be the inner essence of what is and what is done, we are of that essence. (12)

SECTION II

It is largely within his work Creative Evolution, that Bergson demonstrates that duration is essential to the life of the universe as a whole and not solely peculiar to man; that 'conscioousness' or the psychical force or morement within each individual, penetrates the whole of reality. Through an analysis of the evolutionary process, he establishes the continuity of man's consciousness with the animal kingdom in its entirety; and determines the relation of this 'movement' to the inanimate or material world. He is thus led to distinguish between two opposed 'movements' constitutive of reality - that of life, spirituality or duration, and that of materiality, or matter. The universe as a whole is shown to be similar to the human mind in that both these movements, the former towards growth, creation and freedom, and the latter towards repetition, homogeneity and necessity, are present. Corresponding to these we have two complementary but opposed faculties of knowledge - that of intuition for the former and intelligence for the latter. (In outlining the genesis of intelligence Bergson provides the historical/biological explanation for the nature of both the intellect and language.) Stewart comments as follows on this dichotomy:

> ...by means of that which is material in ourselves we are enabled to know matter; by means of that which is vital and spiritual in ourselves we can come into sympathy with life and spirit. (13)

Bergson thus replaces man's intellect, so to speak, into the evolutionary process as a whole, to discover the 'terminal point' of

diverse evolutionary tendencies, and thereby to find from what they were originally derived, how they relate to one another, and to grasp or understand the movement, or life, as a whole.

His task is also to show that the intellect is incapable of any other than a mechanical interpretation of the universe, and further, that there is another faculty, latent in consciousness which is capable of so doing. In the first place he argues that all previous attempts at explanation of life have been fundamentally mechanical.(14) Secondly, he tries to show that the form of intelligence has evolved to fulfill a definite function, and that to do so it must remain basically mechanical. Similarly language serves a definite purpose and follows the dictates of the intellect. Bergson's emphasis is on the second proof.

Bergson must demonstrateas well that a mechanical theory of life (and this may be understood in a general sense to mean any theory formulated by ordinary rational thought) does not adequately explain life generally and particularly the evolutionary process. (In the same manner as psychophysics and equivalent scientific endeavours fail in principle to deal with psychic states.) He could prove that the perfect functioning of intelligence yields a mechanical representation of reality but he must go further to demonstrate the existence of a reality which is non-mechanical in nature and thereby beyond the reach of intelligence. He shows the need to posit an original 'psychical' impetus, common to all species, and thereby demonstrates the complementarity of diverse tendencies resulting from this. The nature of duration and that of intuition are clarified by an elucidation of the relationship between instinct and intellect, as evolved from this basic impetus. At the same

time, the fundamental characteristics and limitations of the intellect are delineated.

Thus ifit is the case that the universe as a whole is a dynamic creative force, then the intellectual faculties of the human mind will be inadequate to its comprehension, and language inadequate to its expression. The same, we have seen, holds true with respect to our 'selves'. Our intelligence enables us to adapt to our material environment but cannot by itself reveal the essence of life - of duration.

> ...life...from its origin is the continuation of one and the same impetus, divided into divergent lines of evolution. Something has grown, something has developed by a series of additions which have been so many creations. (15)

Here we can only state an outline of the arguments put forth by Bergson concerning evolution, and the implications drawn from his theory that pertain to the above issues. His conclusions are based partially on an examination of all scientific evidence for evolution, and partially on an analysis and evaluation of other theories of evolution. We begin here with the latter.

The theory attributing evolution to a series of accidents, he claims, be they insensible variations or sudden perceptible ones, is inadequate. Likewise is that positing its occurrence through the direct or indirect influence of external circumstances and the consequent adaptation to this environment. None of these theories, Bergson contends, can account for resemblances in organ structure of two independent species. He uses, as an example the complex structure of the eye. Moreover, such structural similarities are very common within the

animal kingdom. Bergson thus claims:

> ... we must appeal to some inner directing principle in order to account for this convergence of effects. (16)

An organ like the eye could only have been so formed by continual change in a definite direction. Any combination of physical and chemical causes does not constitute a sufficient explanation. There must be an impetus or force, sustained along all divergent lines of evolution which would be the basic cause of all those variations - 'that accumulate and create new species'. (17) Adaptation to environment is a necessary condition for evolution: this is not to say, however, that it is the directing cause of evolution.

Evolution, he therefore contends, always admits of a psychological interpretation. Along each of the diverse lines there remains something in common - something of the 'whole' remains in the 'parts'. He thus speculates that the essential causes at work must be of a psychological nature; the 'common impetus', this inner directing principle wouldbe a force of a psychical or spiritual nature - essentially a creative force. Bergson refers to it as a universal 'consciousness'.

Bergson's next step is to further verify this hypothesis and to determine more precisely the essence of this common impetus, its original nature and divergent tendencies. He thus traces the divergent directions or tendencies life has followed in the evolutionary process. His aim is to find the principal directions of the evolution of different species, rather than the order of succession of particular ones, and primarily that leading to man. Thereby he seeks to determine the relation of man to the animal kingdom, and the place of the animal world within the whole.

> Combining these tendencies then, we shall get an approximation or rather an imitation of the indivisible motor principle whence their impetus proceeds. (18)

An attempt is thus made to delimit the plant and animal kingdoms. Since all manifestations of life possess in some state or other the ess
essential characteristics of other forms of life, the distinctions are made in terms of proportions or tendencies. There is no definite characteristic that distinguishes the plant and animal kingdoms in their entirety, that is, no precise definition of either.

> ...the group must not be defined by the possession of certain characteristics but by its tendency to emphasize them. (19)

Thus taking into consideration tendencies and not states, Bergson distinguishes the two divergent series - those of plants and animals. Of the latter he claims: "animal life is characterized in its general direction by mobility in space"; plants, by their immobility. These (20)
two tendencies, which in their proportions distinguish two evolutionary kingdoms, are, however, signs of deeper ones - those of consciousness and the lack of consciousness.

> Consciousness and unconsciousness mark the directions in which the two kingdoms have developed, in this sense, that to find the best specimens of consciousness in the animal we must ascend to the highest representatives of the series, whereas to find probable cases of vegetable consciousness we must descend as low as possible in the scale of plants. (21)

Thus one would define the animal by 'sensibility and awakened consciousness', and the vegetable by 'consciousness asleep and insensibility'. As the vegetable can manufacture organic matter directly out of mineral elements, this enables it to dispense with mobility and

feeling. On the other hand, animals who mustsearch for organic food: -

> have evolved in the direction of locomotor activity and consequently of a consciousness more and more distinct, more and more ample. (22)

Given the nature of these divergent tendencies Bergson speculates that the characteristics of the animal and vegetable kingdoms co-existed originally in some common species, and that they dissociated as they grew.

> The harmony of the two kingdoms, the complementary characters they display, might then be due to the fact that they develop two tendencies which at first were fused in one. (23)

Such an original tendency split as it developed, but in each specialized trend, what was essential in the original was, in various degrees, preserved.

On the basis of the data providing evidence for evolution, Bergson observes further that as life developed, there arose an increasing proportion of indeterminacy or freedom.

> ...at the root of life there is an effort to engraft on to the necessity of physical forces the largest amount of indetermination. (24)

Later he states:

> ...the role of life is to insert some indetermination into matter. Indeterminate, i.e. unforeseeable are the forms it creates in the course of its evolution. (25)

Evolutionary development, can in general be understood in terms of these two movements,that towards materiality, and that of life. The way life evolves and breaks down into species depends on these two sorts of causes. First, the resistance of inert matter; secondly, the force or impetus which life bears itself. Life, as a creative evolution

is set back, retained or thwarted by the very materiality it has assumed.

As seen in the last chapter where the distinction was made between the superficial and the fundamental self, we experience this dual aspect most intimately in our own lives. In general, what Bergson has observed to be characteristic of evolutionary development as a whole is that which characterizes individual human growth - consciousness, movement, freedom, creation - in a word, duration.

Considering the movement of life as a whole, particularly within the animal kingdom, Bergson observes two immanent powers, instinct and intelligence, which originally were united but diverged in the process of growth. These two powers are manifested most clearly in the highest forms of two species - the arthropods and the vertebrates. Using adaptibility and variety as criteria for superiority, he observes insect, especially the hymenoptera, to be the culmination of the evolution of the arthropods, and the human species, that of the vertebrates.

> ...since instinct is nowhere so developed as in the insect world, and in no group of insects so marvellously as in the hymenoptera, it may be said that the whole evolution of the animal kingdom, apart from retrogressions toward vegetative life, has taken place on two divergent paths, one of which led to instinct and the other to intelligence. (26)

It is therefore the vegetative, instinctive and rational elements which must together have formed that original vital impetus, which in the course of evolution were dissociated. These three elements would not constitute successive degrees of the same tendency, but divergent tendencies of an activity which split as it grew. The difference is of kindrather than degree or intensity. In so far as instinct and intelligence

are things or tendencies of a different order, one cannot be considered superior.

If the force immanent in life were unlimited, the two might have developed together; but everything, Bergson claims, points to the fact that this force, being limited, must choose, so to speak, the direction to follow. Although they diverge increasingly as they develop they would never entirely separate. Neither the one nor the other would ever be found in a solitary state; each retains traces of the other:

> In reality, they accompany each other only because they are complementary, and they are complementary only because they are different, what is instinctive in instinct being opposite to what is intelligent in intelligence. (27)

So even within the human species, where the intellect is perfectly operative and dominant, there remains a residue of instinctual activity.

As instinct and intelligence appear to be the highest manifestations of living tendencies, Bergson looks to them to determine how an organism generally manifests life. In instinct and intelligence he sees two different modes of psychical activity, and primarily "two different methods of action on inert matter", so life is manifested in an organism's efforts to obtain things from the material world. in its action on matter. (28)

Bergson states here more precisely how instinct and intelligence represent divergent solutions of this same problem. Intelligence, -

> ...considered in what seems to be its original feature, is the faculty of manufacturing artificial objects, especially tools to make tools, and of indefinitely varying the manufacture. (29)

Instinctual action, on the other hand, is somewhat more direct. Certain

instruments form part of the body itself; corresponding to these is an instinct which knows how to use them. This would define the limits towards which instinct tends, that is "instinct consists in a natural ability to use an inborn mechanism". At the height of instinct and (30) intelligence we find the essential difference:

> ...instinct perfected is a faculty of using and even of constructing organized instruments; intelligence perfected is the faculty of making and using unorganized instruments. (31)

Accordingly, instinct and intelligence constitute two modes of 'internal activity'. The differences in internal structure then imply two different kinds of knowledge. Instinctual knowledge is rather acted and unconscious, and in the case of intelligence, it is thought and conscious. Consciousness here signifies deliberation or choice - in Bergson's terms 'the representation of the act'. The knowledge inherent in instinctual behaviour is rather only implicit; it is externally reflected in actions and movements rather than inwardly or internally in consciousness.

Innate intelligence Bergson considers to be inherited knowledge of relations or forms rather than objects; with instinct it is knowledge of a matter.

> ...whatever in instinct and intelligence is innate knowledge, bears in the first case on things and in the second on relations. (32)

It is thus a tendency to establish relations that is innate in intelligence; and this tendency implies natural knowledge of general relations:

> Where activity isdirected toward manufacture, therefore knowledge necessarily bears on relations. But this
>
> entirely formal knowledge of intelligence has an immense

advantage over the material knowledge of instinct. (33)

This innate tendency to establish relations seems to be an unconscious knowledge of certain relations employed habitually - those for instance of identity, of cause and effect, of contained to container - all of which are inherently spatial. These would constitute regulative principles for the activity undertaken by human beings (the major activity, we noted above, being action on inert matter). Stewart states the following with respect to these relations.

> The activity of all intelligent beings, i.e. of all vertebrates, isregulated by them, and man most particularly in his manufacturing activity, proceeds upon these general relations, which upon reflection, appear to him as necessarily true. These fundamental conceptions or principles may also be regarded as constituting the framework of an ideal material or spatial world. (34)

We noted above how the logic of the language we employ follows the same patterns; for instance, the manner in which we express change in an object.

The primary function of intelligence is then to establish relations. The intellect is regarded as relative to the needs of action; the form of the intellect can then be deduced from this function. We know that the intellect is especially adapted to action, in particular, to construction, in which the material world is treated as inert immobile matter. The capacities and limitations of the intellect can be stated accordingly.

> If therefore, the tendency of the intellect is to fabricate, wemay expect to find that whatever is fluid in the real will escape it in part, and whatever is life in the living will escape it altogether. Our intelligence, as it leaves the

hands of nature, has for its chief object the unorganized solid. (35)

Bergson proceeds next to clearly delineate these characteristics. The intellect, functioning best in the material world on solid, extended objects, considers matter to be indefinitely divisible. The continuity of material extension is equivalent to the possibility of decomposing matter.

> Of the discontinuous alone does the intellect form aclear idea. (36)

And words have precise meanings only when they designate fixed objects. Although we act on mobile objects, we are interested only in the beginning or the end, the design or path of the movement, rather than the process or the movement itself.

> From mobility itself our intellect turns aside, because it has nothing to gain in dealing with it. (37)

When it does so the idea of mobility is formed by a construction out of immobilities. This substitution is a practical equivalent for the intellect which aims naturally at useful ends. Bergson thus argues that it is by virtue of a natural disposition that our intellect is attached to the stableand unchangeable.

> Of immobility alone does the intellect form a clear idea. (38)

As fabrication is the basic aim of intelligence, all matter is regarded as carvable and recomposable. From here the idea of a spatial medium is conceived - that which is empty and homogeneous, infinite and infinitely divisible, which can be decomposed in any manner required. This idea of space:

> ...symbolizes the tendency of the human intellect tofabrication. (39)

As the basic intellectual forces treat matter as instrumental for action, the intellect is lost when confronted with the living and theorganized. The intellect always proceeds by resolving the organized into the unorganized:

> ...it cannot think true continuity, real mobility, reciprocal penetration - in a word, that creative evolution which is life. (40)

Continuity cannot be thought by the intellect while following its natural bent: for continuity implies multiplicity of elements and interpenetration of them all. Our tendency is to separate things in space and to fix them in time.

> The intellect is not made to think evolution in the proper sense of the word - that is to say, the continuity of a change that is pure mobility. (41)

The intellect must represent any form of becoming or change as a series of homogeneous states that are reunited. Thinking here consists in reconstituting and this takes place with given, hence stable, elements. Communication takes place by means of fixed symbols. Because the intellect is bent on reconstituting or rearranging the old, it cannot grasp what is new, created, unforeseeable.

> Explaining it (invention) always consists in resolving it, the unforeseeable and new, into elements old or known, arranging in a different order. The intellect can no more admit complete novelty than real becoming: that is to say, here again it lets an essential aspect of life escape, as if it were not intended to think such an object. (42)

Bergson thus considers the inability to comprehend life, as a definitive characteristic of the intellect. Language, following the dictates of the intellect, is likewise limited to communicating only what is basically spatial and static.

An understanding of instinct, however, and how it differs from the intellect, will lead us to the method required to penetrate that with which the intellect is unable to deal and language unable to express - namely, that which is mobile, living, creating - duration. Instinct itself is a process which the intellect and scientific methodology accordingly can never adequately comprehend. Instinct, Bergson claims, ' is molded on the very form of life'. Instinct proceeds 'organically'; intelligence, mechanically. The essential primary instincts are in fact vital processes. Most instincts do admit of scientific explanation - but scientific methods will never be able to completely analyse instinct.

> The reason is that instinct and intelligence are two divergent developments of one and the same principle, which in the one case, remains within itself, in the other steps out of itself and becomes absorbed in the utilization of inert matter. This gradual divergence testifies to a radical incompatibility, and it points to the fact that it is impossible for intelligence to reabsorb instinct. That which is instinctive in instinct cannot be expressed in terms of intelligence nor can it be analysed. (43)'

Bergson asks why we should think instinct is capable of being resolved into intelligent elements or even intelligible terms. Biology has shown us that evolution has taken place along divergent lines. At the extremities of the two principal lines we find instinct and intelligence in their purest forms. This should demonstrate clearly that one need not be nor cannot be resolvable into or reducible to the other.

Yet science can only and does only express instinct in terms of intelligence; and in this procedure an imitation of instinct is constructed.

This, necessarily, is the function of science - it must give us a translation of the object in justthese terms.

> Whether it makes instinct a compoundreflex, or a habit formed intelligently that has become automatism, or a sum of small accidental advantages accumulated and fixed by selection, in every case science claims to resolve instinct completely eitherinto intelligent actions or into mechanisms built up piece by piece like those combined by our intelligence. (44)

The intellect then is unable to comprehend what is vital, what is living - neither consciousness nor duration. However, Bergson does not equate intelligence with the entire capacity of the mind. Our experience is more comprehensive than rational experience, and thought greater than rational or intellectual thought. As noted above, in each of the diverse evolutionary lines, traces of opposing and complementary tendencies are to be found. Instinct, although not intelligible to the intellect, is not beyond the limits of the mind:

> In the phenomena of feeling, in unreflecting sympathy and antipathy, we experience in ourselves - though under a much vaguer form, and one too much penetrated with intelligence - something of what must happen in the consciousness of an insect acting by instinct. (45)

Bergson speculates that the insect would discern a force, by a sort of lived intuition, which might be close to 'divining sympathy'. The scientific theories of instinct either regard instinct as intelligent (that is, intelligence 'lapsed'), or as intelligible (reducible to a pure mechanism). The real explanation, metaphysical rather than scientific, must be sought in the direction of what Bergson calls 'sympathy'.

> Instinct is sympathy. If this sympathy could extend its object and also reflect upon itself, it would give us the key to vital operations - just as intelligence, developed and disciplined, guides us into matter. (46)

It is this which is the domain of intuition - what Bergson calls the 'inwardness of life'. Here he posits the relationship between instinct and intuition:

> ...by intuition I mean instinct that has become disinterested, self-conscious, capable of reflecting on its object and of enlarging it indefinitely. (47)

By disinterested instinct, Bergson means instinct released from its practical activity, from its physiological function. In a real sense, instinctual behaviour in our ordinary understanding of the term is unconscious activity; that is, the insect is notacting for consciously determined ends and neither is he accomplishing them by such means. To talk of instinct becoming slef conscious and reflecting on its object seems contradictory, but the problem is resolved if what was said above about the method of intuition is recalled. (48) Intuition is reflection, but the act of knowing 'coincides' with the process known, or the object reflected upon. The method of intuition, as well, is a disinterested one; that is, it does not have activity as its goal. In this light we can understand the elevation of instinct to intuition.

Intelligence is described by Bergson as the 'nucleus' with instinct, transformed to intuition, forming a vague nebulosity around it. Intuition, he contends, must transcend intelligence, but requires it to elevate it above instinct.

> On the one hand it will utilize the mechanism of intelligence itself to show how intellectual molds cease to be strictly applicable; on the other hand, by its own work, it will suggest to us the vague feeling if nothing more, of what must take the place of intellectual molds. (49)

Although knowledge obtained by intuition could never be comparable

to that of intelligence, it is intuition which brings us to the living - to the vital impetus, to duration, at the heart of evolution and of ourselves.

> ...by the sympathetic communication which it establishes between us and the rest of the living, by the expansion of our consciousness which it brings about, it introduces us into life's own domain, which is reciprocal interpenetration, endlessly continued creation. But, though it thereby transcends intelligence, it is from intelligence that has come the push that has made it rise to the point it has reached. Without intelligence it would have remained in the form of instinct. (50)

Thus Bergson has provided proof, first, that duration is not merely a subjective phenomena, but is that fundamental reality in which both consciousness and the physical or material world participate, and secondly, that by means of intuition, the philosopher is able to comprehend that reality. Moreover, he has demonstrated the requirements of life which prevent the intellect from so doing, and language from communicating. It is these requirements which demand the spatializing activity of the mind, which we have seen to be the cause of our erroneous conception of time.

SECTION III

The question which arises now is this: 'how is thetransition accomplished from this inner duration to the time or duration of physical objects external to us?'. When we perceive the external world, Bergson contends, our perception appears to us to be both

external and internal;as a subjective state of consciousness, and as an objective external reality. As noted above (with the example of the pendulum), each moment of our conscious life corresponds to or is simultaneous with our body and what is external to it as well; the surrounding matter 'seems to participate in our duration'. From here, we habitually or naturally project or extend this duration from the immediate physical environment to the whole world.

> The universe seems to us to form asingle whole; and, if the part that is aroundus endures in our manner, the same must hold, we think, for that part by which it, in turn is surrounded, and so on, indefinitely. Thus is born the idea of a duration of the universe, that is to say, of an impersonal consciousness that is the link among all individual consciousness, as between these consciousnesses and the rest of nature. (51)

The major question for Bergson concerning this hypothesis is not whether it is true or false, but where experience ends and theory begins. Our own duration, and theparticipation of our immediate environment in this duration are facts of our experience, even though the nature of this participation is unclear. (Bergson reached no clearly formulated position onthis question in Time and Free Will) Beyond this, that is, beyond the facts of our experience, there is no absolute proof; in different environments, the same duration may not be experienced. Moreover, there may be differing durations characterizing various levels of consciousness, within the animal world as a whole. However, there appears to be no reason to extend this hypothesis (that of differing durations) to the physical world. Through an argument by analogy, Bergson supports the contrary hypothesis - of a single and universal physical time.

The first premise of this argument is stated as follows:

> All human consciousness are of like nature, perceive in the sameway, keep in step, as it were, and live the same duration. (52)

We may assume, Bergson proceeds, that there are many human consciousnesses, and that any two of these are close enough to share the same 'outer experience', that is, the same external environment, objective events. Then:

> Each of these two outer experiences participates in the duration of the two consciousnesses. And, since the two consciousnesses have the same rhythm of duration, so must the two experiences. (53)

Thus the two experiences, which have part in common, wouldparticipate in a single duration, that of either consciousness. This argument could be repeated until all theevents of the world are shown to participate in a single duration. If we then eliminate human consciousness, there would be just this single, universal and impersonal time, in which everything occurs.

The argument is by no means meant as a conclusive proof but was intended to support Bergson's hypothesis that the physical world must, in a sense similar to our 'selves', endure,and endure in the same degree of mobility. (This is an assumption, implicitin Bergson's philosophy from the beginning.) Furthermore, it must be recalled that for Bergson, at the level of the theoretical, there are no absolute truths, such as there are in the domain of conscious experience. A lengthy analysis and criticism of this argument, then, would not be particularly useful, but two objections can be raised briefly. The first isthat the theory of a single universal time for the entire

universe depends on the identity of inner durations; and this initial assumption remains without proof. Secondly, the nature of this 'participation' of objective events or the external environment, in one's conscious duration is left vague and confused, as is the concept of 'experience (including 'outer experience') generally. The conclusion rests heavily on these two ambiguous concepts.

Leaving the question of a single time in the universe, Bergson attempts to establish again:

> ...that we cannot speak of a reality which endures without inserting consciousness into it. (54)

If time is a succession, and requires a 'before and 'after', it also requires the connection between the two; it is impossible to conceive of such a connection, Bergson argues, without an elementary memory and therefore consciousness. We canconsider a moment in the physical world, independent of human consciousness; and also a second such moment as close as possible to the first. Would we then have, Bergson asks, without any memory or consciousness, a minimum period of time? That would be impossible, he replies, for there would be only one or the other, only a single instant, no before or after, no succession, no time. At the least, an elementary memory is required to make the connection. What we understand here by 'memory' is all that is required to make this connection:

> ... a mere continuing of the before into the immediate after with a perpetually renewed forgetfulness of what is not the immediately prior moment. We shall nonetheless have introduced memory. (55)

The duration which separates the two instants is essentially the same as that memory which connects them; for duration is just this continuation

of the past, 'of what no longer exists' into what exists at present. (56)

A reply is thus given to the third major question raised at the beginning of this chapter. Bergson admits the slight possibility that there be a number of diverse 'durations': but he does attempt to prove the existence of a universal, objective time, and is firmly convinced of the latter himself. He reiterates the position that the physical, material world endures as well, and asserts the corollary which follows - that spiritual or psychic forces - consciousness - must penetrate the universe in its entirety.

SECTION IV

If duration, or consciousness in general, is the domain of intuition, of philosophy, and duration penetrates the physical as well as the psychical realm, we must then establish more precisely the domain of the intellect, and of science. The following section contains a summary and clarification of the characteristics and limitations of the intuitive and intellectual methods for obtaining knowledge, and a consideration of the relationship between science and philosophy, and their relative values.

By intuition, Bergson means:

> ...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. (57)

Intuition signifies a grasp of, or penetration into an immediate

mobility, duration, or what is living and conscious. A certain effort or tension of the mind is required, for in order to philosophize in this manner we must suspend, or detach ourselves from, our normal processes or methods of thought and expression. We requireboth this tension of the mind and a 'faculty' of sympathetic insight in order to attain metaphysical knowledge. We are asked by Bergson to invert the habitual direction of thought, of the mind, and to disregard our conceptual language; for the latter, we have seen, are functions of the human intellect, which - 'is designed for wholly practical purposes', and hence has these essential limitations.

The intellect is the instrument of knowledge for science; it can only comprehend what is inert, spatial and mechanical. Designed to facilitate action, the intellect has specific limitations - the intellect tends to apprehend the world as a collection of spatial objects, to treat it as though it were static and immobile, and in terms of measurable units. In the sciences, time and motion are treated as successions of points and instants. This spatialization of time and mathematical representation of motion actually falsify their real nature. The scientific method thus yields 'relative' knowledge, for the object is externally approached and symbolically represented. This method implies 'moving around the object', that is, viewing the object from a number of perspectives, thus makingknowledge dependent upon our standpoint and the symbols used. Scientific methods usually proceed by analysis -

> ..the operation which reduces the object to elements already known, that is, to elements common both to it and other objects. (58)

We can thereby represent the object from many different points of view so the analysis can go on indefinitely.

The metaphysical method, intuition, on the contrary may yield 'absolute' knowledge in that it claims to dispense with symbols, representations and analysis. It is a means of apprehending a reality by 'entering into' or identifying with it: it is an act of direct participation in experience, in concrete duration. Such an intuition:

> ...is accomplished by making an effort to detach oneself from the demands of action by inverting the normal attitude of consciousness and immersing oneself in the current of direct awareness. (59)

Intellectual cognitions could never yield such direct knowledge of reality. Absolute knowledge, in this sense, as given in intuition is perfect knowledge, that is:

> ..the absolute, which is the object and not its representation, the original, and not its translation, is perfect, by being perfectly what it is. (60)

Hence true metaphysics is the means of apprehending a reality 'absolutely', without representation or symbol or analysis.

In a number of places throughout his works Bergson maintains that the relative knowledge of science complements this absolute knowledge of metaphysical intuition, that both yield true results when restricted to their own sphere. He states in one place:

> ...it is reality in itself, absolute reality, which the mathematical and physical sciences reveal to us. (61)

And in the same article there follows:

> Science begins to become relative, or rather symbolic only when it attacks the problems of life and consciousness from the side of physico-chemistry. (62)

In An Introduction to Metaphysics, however, he claims that scientific results, although practically useful do not constitute true knowledge:

> ..they falsify the actual character of the world in the interests of action. (63)

In Matter and Memory, as well he suggests that the faculty of intelligence always deforms distorts and disorganizes the real. He claims here, that:

> ...enslaved to certain necessities of bodily life (intelligence) has not followed the internal line of the structure of things. (64)

The inconsistency is partially resolved, however, in that Bergson makes a distinction between mathematical and conceptual relations, including those within the sciences. Conceptual relations and terms. although they may lead us to absolute knowledge, will always remain symbolic and provisional. This is not the case with mathematical laws: for Bergson contends that they are immanent in matter, and intelligence, 'which tends naturally to geometry' is at home in this domain. In Creative Evolution, Bergson states the following:

> The intellect bears within itself in the form of natural logic, a latent geometrism that is set free in the measure and proportion that the intellect penetrates into the nature of inert matter. Intelligence is in tune with this matter... (65)

Now we may ask if mathematical laws, according to Bergson, yield 'absolute' knowledge. The intellect, as well as inert matter, must be considered properly as 'movement'; as such, something of the opposing 'movement', that towards spirituality or duration, abides in

that of the former. Thus Bergson points out, also in Creative Evolution, that the laws of mathematics could never apply completely, for in that case it would have to be pure matter, and completely inert. Bergson generally does not refer to these 'movements', and hence speak in terms of degrees, but treats the whole movement as just 'matter'. In fact, he considers everything to be 'part' of one movement or the other, and nothing is ever completely a part of one or the other. As both these inverse movements are 'real', knowledge obtained at the limit of either, by science in the one and metaphysics in the other, may be 'absolute', In this sense only would science yield absolute knowledge.

Bergson's views on the adequacy of conceptual relations have already been discussed at length. They can be summarized in a quotation from An Introduction to Metaphysics:

> ...reality is known and communicated intuitively not discursively - the concepts of the intellect are unable to communicate it. (66)

The task of the philosopher would be to build a progressive knowledge of the realities of life and consciousness which are not symbolic. Bergson believes that like the poet and the artist he must express himself through metaphor, analogy, and image; precise conceptual expression is reserved for the domain of scientific intelligence.

Thus the philosophical method proposed is based on an essential limitation of the validity or applicability of intelligence(and its expression) outside a particular field. Such limitations are inherent in the very nature of intelligence so that no extension of intellectual

categories or forms of thought can transcend them. Its sphere is that of inert matter; beyond that its use is strictly pragmatic, and will not yield true knowledge. Bergson contends that all developments in modern science increasingly illustrate the inability of the intellect to comprehend anything other than what is static and mechanical. Events analysed by the sciences are generally separated from the 'whole' and unique differences are ignored. Stewart states this position as follows:

> ...it is due to the inherent nature of intelligence as a faculty of action, which must isolate and predict - which, indeed, must isolate and eliminate differences in order to predict. (67)

The method of science is increasingly dominated by the law of identity; the procedure is expressed by means of concepts and space is always immanent. In this method there is a distinction between the knower and what is known. The metaphysical method, on the other hand, is a dynamic immediate one; the distinction between the subject and the object has not yet arisen or has been removed. Referring to the attainment of this immediate knowledge, Bergson says that it is knowledge -

> ...emptied of all which does not come from the object itself and, consequently, infallible and perfect. (68)

CHAPTER IV

As stated earlier, the aim of this thesis was not to provide a comprehensive critique but rather an exposition and analysis of the development of Bergson's conception of time. The purpose of this chapter will be to summarize that development and point out some of the major problems in Bergson's position. My aim here is to demonstrate that the problems in Bergson's philosophy arise generally from a misunderstanding of language, its nature and its use (for example, arbitrary definitions and limitations) - and in particular from the basic distinction Bergson establishes between quality and quantity - a distinction which is fundamental to his entire philosophy.

A general proof is offered to show that quantity is not applicable to psychic states, to our actual conscious experience of individual sensations, nor to the 'multiplicity' in consciousness. I will argue that Bergson may be correct about the former, butnot the latter. There is one comment to be made in connection with the first argument. The criteria for number, Bergson claims, implies that the object to which it applies must be extended. Therefore quantity cannot apply to mental or psychicstates, or to anything that is not material. When we do so, it is largely due to the

illegitimate transfer of objective causes and conditions into our subjective conscious experience. He cites a method of avoiding the problem through a distinction between 'extensive and measurable' quantity and 'intensive and non-measurable' quantity. The solution is dismissed by the claim that the criterion for one would not be applicable to the other. The point to be made here, is that Bergson is mistaken about the requirements for the correct and meaningful use of a wordor concept. This is an objection that Wittgenstein would raise here; namely, that the criteria for the use of a word in one set of circumstances need not bethe same as the criteria employed in a different situation. Bergson could reply, however, thatthe meaning of the expressions 'greater than' and 'less than' implies reference to extended objects; and thus the use of this language to refer to psychic states actually falsifies or distorts the basic nature of psychic phenomena. The objection remains: for if the word or concept is notused out of the context, and we understand the situation or circumstances, such distortion would not occur.

It appears thatBergsonhas just arbitrarily defined quantity in this case and as a result can establish the radical distinction between quality and quantity. He attempts to demonstrate, in effect, that this is not an arbitrary definition, but follows necessarily from the nature of language demanded by the function of the intellect. We will see below that this limitation is unjustified. Consequently the same objection holds with respect to all the characteristics which he claims to be true of language.

All attempts to measure sensation, Bergson concludes, are futile in principle; for essential qualitative factors are eliminated and interpreted as quantitative. Thus, according to Bergson, individual psychic states are experienced as qualitative; it is at a reflective level that they are interpreted as quantitative. The question at this point is whether all states together can be considered in terms of quantity; that is, does number apply to the multiplicity of conscious states - this 'form' of duration. In order to determine the fundamental nature of duration, Bergson considers the possibly distorting effects the external conditions and the activity of the intellect would have on this multiplicity.

Bergson thus establishes the distinction between time as quantity and time as quality, and then clarifies our habitual confusion between the two. The proof offered is to the effect that the concept of number implies a spatializing activityof the mind,that is, quantity implies spatiality. Hence the multiplicity of psychic states bears no resemblance to units of a number; quantity is not therefore, applicable to duration. The concept of quantity and 'reciprocal externality' are characteristic of and applicable to space (the extended, material world) and not time.

I cannot here examine the argument in detail, but will rather suggest where the error lies. Theconclusions Bergson draws concerning the meaning and use of 'number' rest on the process he believes is required in order to form or learn the notion of number; and that is that we must have an image of a number of objects in juxtaposition, and

that these objects must be considered identical. Hence he concludes thatwe can only applynumber when we have discrete material objects and quality is eliminated. In other words, Bergson has equated the conditions for the genesis of the notion of number with the criteria for its use. A clear idea of number, he claims, implies a visual image in space. He presupposes that an idea of number is equivalent to the representation of objects. Bergson considers a word to be clear and precise only when it denotes an object. Again, this is the conclusion drawn from his view of the function of the intellect. If this criticism is correct, then there would be no such identification of temporal succession with spatial juxtaposition nor the separation of quantity from the concept of time.

Having allegedly proved that quantity implies spatiality, he thereby demonstrates that the multiplicity of conscious states differsfrom that of material objects; the former is a multiplicity of interpenetration and the latter of juxtaposition. Inthe multiplicity of consciousness, the states are not distinct and must be symbolically represented in space in order to be quantified. Bergson analyses our ordinary concept of time and explains how duration or real time differs from it. Our ordinary concept of time arises from just this symbolic representation of psychic states. This representation by the intellect is therefore actually space, he contends, and hence duration must be radically different.

There follows Bergson'sanalysis of the concept of space and thespatializing activity of the mind; the latter we are told is due to the requirements of practical life. Our ordinary concept of space

as a homogeneous medium, and our concept of time, as the same, are analysed in order to determine the nature of real time from which the latter was derived.

Duration then, is unlike our ordinary concept of time - that formed by the intellectual faculty; Bergson describes the nature of this 'real' time and shows how duration differs from 'clock' time. 'Measuring time' is found to be merely 'counting simultaneities. The transfer of external conditions into duration is allegedly explained and the reasons are given for this interchange between pure succession and pure externality. The explanatory case for this transfer, illustrating the fabrication of the spurious conception of time, is the pendulum. We noted the difficulty with this explanation in Chapter One. It fails to explain the origin of this concept of time without presupposing it. A conclusion to be drawn as a result, is that the notion of number is not alien to the multiplicity in consciousness; Bergson is mistaken about the nature of real time and there is no radical distinction to be established between 'clock' time and duration. Also, any radical distinction between the real or fundamental self and the superficial self becomes untenable.

Chapter Three begins with an explanation of the necessity for intuition in order to return to the fundamental self, to our immediate experience and to comprehend duration. Continuous change is shown to be necessary for the self to endure; and consciousness is always changing due to the activity of memory. Duration as experienced in consciousness, is seen to be characterized by

creativity, heterogeneity, unforeseeability and freedom. What is required to grasp this duration, to return to immediate experience, is a divorce from the reflective or theoretical level of the normally functioning intellect. What I believe to be Bergson's error with respect to the intellect and its spatializing activities willbe discussed below.

An account is given explaining why scientific methodology and the intellect fail to comprehend these living forces, and Bergson concludes that we must transcend the intellect inorder to think philosophically and direct philosophy into a more satisfactory path. Intellect is reserved to the domain of science.

New functions of thought must then be developed by the philosopher to return to the level of immediate conscious experience. A thorough understanding is required of what normally prevents this and how to return to this level. The major reasons are given for this distortion and confusion by the intellect - confusion of space and time, artificial and fundamental selves, objective conditions and subjective experience, and so on.

Bergson explains how it is that language is largely responsible for these errors; the essential and inevitable nature of language is such that what is given in intuition can never be adequately expressed or communicated in language. When it is, 'image' is more appropriate than concepts. The entire realm of conceptual thought is such that it cannot represent real movement, change, duration, novelty, subjective states etc. It is restricted to the domain of the

material, the static, the mechanical. Generally this view of change and movement as secondary, is prompted as well by our mode of perception.

Let us return to some of the statements Bergson makes with respect to the capacity of language to communicate reality, that is, change. As stated earlier, I am suggesting that Bergson's theory concerning the nature and limitations of language is untenable. He judges the power of words and concepts to express reality, by isolating or abstracting the word or concept from the concrete situation in which it is used.

Bergson claims, for instance, that words have definite and precise meanings only when they denote an object. When the word becomes applicable to many things, it loses that meaning and comprehension is diminished. If we take a word with a variety of different meanings and write it on a page, Bergson's claim is correct - the word itself has no clear meaning and communicates nothing. This, however, is not how we use words and expressions and communicate. As soon as we use the expression in a sentence and use the sentence in an appropriate situation the intended meaning, if used in accordance with ordinary language, will become clear.

Bergson is correct in maintaining that many of the signs and symbols employed in the sciences, in mathematical formulae for instance, could not represent movement or change generally. There is a difficulty as well with certain abstract concepts, for example, memory, in that they tend to be treated in our language as if they represented things, and hence one could attribute properties to them.

The difficulty of clarificationwith respect to some conceptual terms, however, does not imply their failure to communicate reality, and implies little for concepts and language generally. We need only consider the following abstract concepts and general terms - education, government, church, rule, party, factory, butter-fly, smoke, dream, song, and so on; the images, ideas, memories, perceptions that are brough to mind do not all imply fixed, static or mechanical states of affairs. Yet Bergson claims that all our concepts together would represent a static material world. Consider the sign that reads "fire - beware"; could it 'denote a fixed aspect of reality under an arrested form'?

Another condition of the sign, according to Bergson, is that it cannot express what is subjective and personal; the use of words 'covers' and conceals our psychic states. Again I suggest that this is only the case when we think of isolated words and expressions abstracted from the concrete situation in which they are used. An expression of love, for instance, written on this page, would not convey a passionate subjective feeling, or any feeling at all. Yet we could describe many varied situations in which it would. For a concept or general term to communicate an experience and be understood clearly, what is required is some knowledge of the situation to which it refers or in which it is being used. For expressions of personal feeling etc. this would include knowledge of persons - in the general sense, and necessarily in the particular.

The general nature of language, Bergson contends, is determined by the function it serves; and that is, the needs of life - particularly

common activity, including action on matter or construction. Language is 'meant' for activity and not for speculation. For this purpose language either prescribes or describes. If action, of any sort, is required in order to meet practical needs then there must necessarily be expressions which communicate action, movement and change. Yet Bergson claims to deduce the forms of intelligence from this function and concludes that the forms are static, spatial and mechanical.

It may be the case that some or many linguistic expressions infer that stability is primary and change secondary; but Bergson's position could not follow - that language inevitably and necessarily fails to express and communicate change, movement or real time.

As language for Bergson, follows the dictates of the intelligence, we will examine the argument given for the limitations of the mind.

In the previous chapter we discussed Bergson's reply to three major questions that emerged. First, the method of intuition is shown to be applicable to every aspect of reality - the whole world of the living, and is not limited to an investigation of one's own consciousness. Secondly, through a study of evolution, Bergson demonstrates that duration is fundamental to the life of the universe as a whole, clarifies the nature of intellect in a comparison with instinct, and shows the need for intuition. Finally Bergsonconsiders the transition from inner duration to the time or duration of physical objects external to us and argues in support of a single universal time.

An account is also given of the necessary connection of memory, consciousness and duration vis-a-vis both the universe and man. Finally the major distinctions between intellect and intuition are drawn and the relative truth values of science - the domain of the intellect, and philosophy, that of intuition, are considered.

One of Bergson's aims in the study of evolution, was to show that the intellect (ordinary rational thought) is incapable of any other than a mechanical interpretation of the universe. He demonstrates that the form of intelligence evolved to fulfill a definite function and to do so it must remain spatial and mechanical - foreign to the nature of duration.

Bergson arrives at the position where he considers instinct and intelligence to be the highest manifestations of living tendencies. He examines these to determine how an organism manifests life. In instinct and intelligence he sees two modes of psychical activity and two methods of action on matter. He concludes that life is manifested in an organism's action on matter. He speculates that the original feature of intelligence was the manufacture of objects, especially tools, and deducesthat the internal structure of intelligence contained a knowledge of relations or forms. There is an innate tendency in intellect to establish relations and this implies unconscious knowledge of certain key relations, for example, identity, cause and effect, container-contained - all of whichare inherently spatial.

Here Bergson has considered the function as action on matter, or fabrication, deduced the form , and states the capacities and

limitations of the intelligence accordingly. Essentially the intelligence treats everything as stable, spatial,discrete, mechanical and immobile. Therefore anything that is living is isolated in space and fixed in time. Language is one of the results of this spatializing activity of the mind.

There are three general points of criticism to be made against this hypothesis. First: the original feature of the intellect is said to be construction - action on inert matter. However, that is not to say it was the only function the intellect served nor that it remains the primary function. The nature of the intellect as we understand it may have nothing to do with the original purpose and structure. Secondly: Bergson just assumes the form is logically deducible from the function and that the resulting characteristics are all inclusive and invariable. The final point is the same as that raised earlier in connection with language. If the intelligence is relative to the needs of action then change would not be foreign.

If Bergson's view of the nature of the intelligence is incorrect, his understanding of language is as well. Quantity would not therefore imply spatiality and the radical distinction between quality and quantity could not be established, nor could that between space andtime.

Notes to Chapter One

1. Bergson, Henri, Time and Free Will, (New York: The Macmillan company, 1959), p. 3

2. Ibid., p. 7

3. Ibid., p. 8

4. Ibid., p. 19

5. Ibid., p. 26

6. Ibid.

7. Ibid., p. 31

8. Ibid., p. 32

9. Ibid., p. 42

10. Ibid., p. 47

11. Ibid., p. 57

12. Ibid., p. 64

13. Ibid., p. 66

14. Ibid., p. 63

15. Ibid., p. 70-71

16. Ibid., p. 72

17. Ibid., p. 73

18. Ibid., p. 75-76

19. Ibid., p. 77

20. Ibid., p. 78

21. Ibid., p. 78

22. Ibid., p. 79

23. Ibid., p. 82

24, Ibid., p. 83

25. Bergson, Time and Free Will, p. 86

26. Ibid., p. 87

27. Ibid.

28. Ibid., p. 90

29. Ibid.

30. Ibid., p. 91

31. Ibid., p. 95

32. Ibid.

33. Bergson, Matter and Memory, (New York: The macmillan Company, 1910) p. 278

34. Ibid. p. 278

35. Bergson, Time and Free Will, p. 97

36. Ibid., p. 98
The point that if time were such a homogeneous medium, it would be given all at once, is here just assumed. It will become clearer when Bergson analyses the heterogeneous nature of real time.

37. Ibid., p. 98
The 'trespassing' or 'interchange' is explained by means of the pendulum example below.

38. Ibid., p. 99

39. Bergson,Matter and Memory , p. 280

40. Bergson, Time and Free Will, p. 100

41. In an essay, 'The Perception of Change', from A Study in Metaphysics: The Creative Mind (New Jersey: Little field, Adams & Co., 1965)p. 149, Bergson clarifies what he means here:
"That time implies succession I do not deny. But that succession is first presented to our consciousness, like the distinction of a 'before' and 'after' set side by side, is what I cannot admit."

42. Balsillie, D., 'Prof. Bergson on Time and Free Will', Mind, 1911. p. 359.

43. Bergson, Time and Free Will, p. 101
Note the phrase 'the same instant'; Bergson is required throughout his work ot use temporal expressions that imply a quantified time. This, Bergson would contend, is attributable to the pragmatic nature of language. See also chapter three.

44. Bergson, Time and Free Will, p. 102

45. Ibid., p. 104
For discussion of 'pure heterogeneity' see chapter two.

46. Ibid., p. 105

47. See section one above on intensity of psychic states.

48. Bergson, Time and Free Will, p. 107.

49. Ibid., p. 108-109

50. Bergson, Time and Free Will, p. 110

51. We shall return to this point in the critical discussion, chapter four.

52. Bergson, Time and Free Will, p. 112

53. Ibid., p. 114

54. Ibid., p. 116

55. Ibid., p. 120

56. Ibid., p. 123

57. Ibid., p. 125

58. Lovejoy, Arthur O., 'Problem of Time in French Philosophy', The Philosophical Review, Vol. XXI, - comments on this particular example of succession which involves no 'quantity' or externality of parts. When, as in this case, we are not conscious of the successive beats of a rhythm or a clock, he claims, then the awareness, on the last beat of the rhythmic whole, is not an experience of succession. When objectively considered they are successive, but the beats are neither experienced as a numerical aggregate nor as successive.

59. Bergson, Time and Free Will, p. 128

60. Ibid.

61. Ibid., p. 129
See also chapter two section three.

62. Ibid., p. 135

Notes to Chapter Two

1. Bergson, An Introduction to Metaphysics, (New York: The Bobbs-Merrill Company Inc., 1965),p. 25

2. Bergson, Creative Evolution, (New York: The Modern Library, 1944), p. 4

3. For detailed discussion on the latter two causes, see section three below; the former is dealt with in chapter three.

4. Bergson, Creative Evolution, p. 6

5. Ibid.

6. Ibid., p. 7

7. Bergson, Duration and Simultaneity, (The Bobbs-Merrill Company Inc., New York, 1965) p. 44

8. Bergson, Creative Evolution, p. 4

9. Ibid., p. 20

10. Ibid.,p. 7-8

11. Bergson, 'The Perception of Change', in A Study in Metaphysics: The Creative Mind, p. 155

12. Bergson, Creative Evolution, p. 9

13. Bergson, 'The Possible and the Real', in A Study in Metaphysics: The Creative Mind, p. 93

14. Bergson, Creative Evolution, p. 10

15. Ibid., p. 219

16. Ibid., p. 220

17. Unfortunately, within the scope of this thesis, Bergson's conception of freedom cannot be discussed in any appropriate depth.

18. Bergson, Creative Evolution, p. 261

19. The question of duration vis-a-vis 'life' in general, is further discussed in chapter three.

20. Bergson, Creative Evolution, p. 324; see also #19.

21. Ibid., p. 325

22. Bergson, Creative Evolution, p. 365

23. Bergson, Duration and Simultaneity, p. 49

24. Bergson, Creative Evolution, p. 371

25. Bergson, 'Introduction (Part I)', in A Study in Metaphysics: The Creative Mind, p.13-14

26. Ibid., p. 27

27. Bergson, 'Introduction (Part II)', in A Study in Metaphysics; The Creative Mind, p. 32

28. Ibid., p. 35

29. Bergson, Creative Evolution, p. 374
See also chapter three for further consideration of Bergson's position on the relationship between science and metaphysics.

30. Bergson, 'Philosophical Intuition', in A Study in Metaphysics: The Creative Mind, p. 124

31. Bergson, 'Introduction (Part I)', in A Study in Metaphysics: The Creative Mind, p. 14-15

32. Ibid., p. 14

33. Ibid., p. 15

34. Bergson, 'Introduction (Part II)', in A Study in Metaphysics: The Creative Mind, p. 46

35. Ibid., p. 87

36. Bergson, 'Introduction (Part I)', in A Study in Metaphysics: The Creative Mind, p. 27

37 Bergson, 'Introduction (Part II)', in a Study in Metaphysics: The Creative Mind , p. 49-50

38. Bergson, 'Philosophical Intuition', in A Study in Metaphysics: The Creative Mind , p. 119

39. Bergson, 'Introduction (Part II)', in A Study in Metaphysics: The Creative Mind , p. 80

40. Bergson, Creative Evolution, p. 174

41. Bergson, 'Introduction (Part II)', in A Study in Metaphysics: The Creative Mind, p. 49

42. Bergson, CreativeEvolution, p. 176

43. Ibid., p. 177

44. Ibid., p. 177

45. Ibid., p. 217

46. Ibid., p. 357

47.

48. Bergson, 'Introduction (Part II)', in A Study in Metaphysics: The Creative Mind, p. 68-69

49. Bergson,'Introduction (Part I)', in A Studyin Metaphysics: The Creative Mind, p. 27

50. Bergson, Time and Free Will, p. 130

51. Ibid., p. 131

52. Ibid., p. 133

53 Ibid., p. 160

54. Ibid., p. 164

55. Bergson, 'The Perception of Change' in A Study in Metaphysics: The Creative Mind, p. 143

56. Bergson, An Introduction to Metaphysics, p. 50

57. Ib id., p. 50-51

58. Bergson, Creative Evolution, p. 343
For more critical consideration of Bergson's conception of language see chapter four.

59. Bergson, 'Introduction (Part II)', in A Study in Metaphysics: The Creative Mind, p. 43

Notes to Chapter Three

1. Bergson, An Introduction to Metaphysics, p. 45

2. Stewart, J. McKellar, ACritical Exposition of Bergson's Philosophy, (London: Macmillan & Company Ltd., 1911) p. 23

3. Bergson, An Introduction to Metaphysics, p. 46

4. Ibid., p. 48

5. Ibid., p. 49

6. Ibid.

7. Bergson, 'Introduction (Part II)', in A Study in Metaphysics: The Creative Mind, p. 32

8. Ibid, p. 33

9. Ibid., p. 33

10. Ibid.

11. Bergson, 'Philosophical Intuition', in A Study in Metaphysics: The Creative Mind, p.124

12. Ibid.

13. Stewart, J. McKellar, A Critical Exposition of Bergson's Philosophy, p. 8

14. Bergson demonstrates,in the first chapter of Creative Evolution, how the other major philosophical explanation, namely, finalism, is basically a type of mechanism.

15. Bergson, Creative Evolution, p. 60

16. Ibid., p. 85

17. Ibid., p. 98

18. Ibid., p. 112

19. Ibid., p.118

20. Ibid., p. 120

21. Ibid., p. 124

22. Bergson, Creative Evolution, p. 126

23. Ibid., p. 129

24. Ibid., p. 127

25. Ibid., p. 140

26. Ibid., p. 148

27. Ibid., p. 150

28. Ibid., p. 151

29. Ibid., p. 153

30. Ibid., p. 154

31. Ibid., p. 155

32. Ibid., p. 163

33. Ibid., p. 166

34. Stewart, J. McKellar, A Critical Exposition of Bergson's Philosophy, p. 121

35. Bergson, Creative Evolution, p. 169

36. Ibid., p. 170

37. Ibid., p. 171

38. Ibid.

39. Ibid., p. 173

40. Ibid., p. 178

41. Ibid., p. 179

42. Ibid., p. 181

43. Ibid., p. 184

44. Ibid., p. 191

45. Ibid., p. 192

46. Ibid., p. 194

47. Ibid.

48. See also section one of this chapter; intuition as 'coincidence, and the elimination of the subject/object dichotomy.

49. Bergson, Creative Evolution, p. 195

50. Ibid., p. 195

51. Bergson, Duration and Simultaneity, p. 45

52. Ibid., p. 46

53. Ibid., p. 47

54. Ibid., p. 48

55. Ibid., p. 48

56. Ibid., p. 49

57. Bergson, An Introduction to Metaphysics, p. 24

58. Ibid.

59. Ibid., p. 12

60. Ibid., p. 22

61. Bergson, 'Enquete sur l'enseignement de la Philosophie', Bull. de la Soc. franc. de phil.: January 1908: p. 21

62. Ibid., p. 21

63. Bergson, An Introduction to Metaphysics, p. 15

64. Bergson, Matter and Memory, p.

65. Bergson, Creative Evolution, p. 214

66. Bergson, An Introduction to Metaphysics, p. 15

67. Stewart, J. McKellar, A Critical Exposition of Bergson's Philosophy, p. 18

68. Bergson, 'Vocabulaire Philosophique', Bull. de la Soc. franc. de phil.: August, 1908: p. 332.

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