CHAPTER V

Change and Time - Henri Bergson
HENRI BERGSON

Henri Bergson, a French Philosopher, advocated the theory of 'becoming' and built his own metaphysics in the background of his wide knowledge of biology and psychology. He was much influenced by the evolutionary philosophy of Herbert Spencer, and the anti-mechanistic and anti-intellectual trends in contemporary thought. The philosophy of Bergson is vitalistic and dynamic in character. Bergson advocates the thesis of universal flux in a unique way. His notion of 'Change' differs from the other schools of dynamism, as he upholds the reality of change and identifies change with time. For him, change is the very stuff of reality. He is also of the opinion that a correct understanding of the concept of change will be of great help in solving philosophical problems like freedom and substance.

In order to explain the theory of change in Bergson's philosophy, it is important to know his epistemology. Bergson says that there are two ways of knowing a thing: (1) by going all round the thing, (2) by entering into it. While employing the former method one has to think in terms of symbols and concepts. By this method, relative knowledge only is obtained. In the application of the latter method, there is no need of concepts or symbolical

1 H. Bergson, The Creative Find, p. 187
representations. By entering into a thing one gets knowledge from within. It is direct knowledge and such is the only way of getting knowledge of the reality according to Bergson metaphysics is the science which dispenses with the symbolical representations and analytical translations. Metaphysical knowledge is obtained through the method of 'entering into'. It is similar to the method of an artist or a poet who is immersed in his creative imagination. It is the method of intuition.

Bergson points out that our present problems in philosophy are due to negligence of intuition. From early times philosophers were guided by sense perception. Consequently they pointed to some material substance as the ultimate reality; or they held that the ultimate reality was beyond sense perception. This has led to the formation of different systems in philosophy by different philosophers.

Bergson wanted to adopt the method of intuition to get metaphysical knowledge and he asserted that, intuition is the best possible method to approach the reality. Bergson while emphasising the faculty of intuition pointed out the futility of instinct and intelligence in apprehending the dynamic reality.

Instinct, intellect and intuition are the methods
adopted by living beings in order to know and deal with their environment. Bergson differentiated among these three faculties of knowing as developed in the course of evolution of living organisms.

Instinct:

Let us first consider his views on instinct. There are two intermingled biological theories of instinct:  

(i) instinct is the sum of accidental differences preserved by selection. It is a habit of a species, transmitted from generation to generation. Thus instinct is a hereditary factor. An act which is found to be useful becomes a habit in the course of time. This habit is hereditarily transmitted within the species.  

(ii) instinct is 'lapsed intelligence.'

Bergson rejected both the theories as being defective. The former makes instinct a product of 'accidental evolution' and the latter considers instinct the result of 'individual effort.' Bergson holds that instinct is organic and 'is moulded on the very form of life.' It works organically. 'The most essential of the primary instincts are really, therefore vital process.' Perfection of these instincts varies from species to species. Further, 'instinct is sympathy.'

1. H. Bergson, The Creative Evolution, p. 178  
2. Ibid., p. 174  
3. Ibid., p. 186  
4. Ibid., p. 186
and also reflect upon itself it would give us the key to vital operations.\textsuperscript{1} Bergson is of the view that instinct is in the line of intuition as opposed to intelligence. Instinct when it becomes 'disinterested' and 'self-conscious' is intuition.

However it is important to note that instinct is said to operate at lower levels of life whereas, intuition functions at the highest level, that of man only. While instinct helps the lower organisms to live successfully intuition helps in realising the reality Bergson further says, "intelligence, in so far as it is innate, is the knowledge of a form; instinct implies the knowledge of a matter.\textsuperscript{2}

**Intelligence**

Intelligence is a faculty used in manufacturing artificial objects directed to serve human purposes.\textsuperscript{3} The function of intelligence is best seen in mechanical inventions. The field of human activity is on inert matter. The solidity of matter is taken by the intellect for fabrication. Our external world consists of discontinuous material objects. These material objects can be manipulated as we like. Intellect is able to divide and unite the material objects. The material world is like a piece of cloth which can be cut at will and awen.

\textsuperscript{1} H. Bergson, The Creative Evolution, p. 186
\textsuperscript{2} Ibid., p. 157
\textsuperscript{3} Ibid., p. 146
together as we please. Such a faculty of mind is characterized by the unlimited power of 'decomposing according to any law and recomposing into any system.' Intellect is a method of pure speculation. The main function of the intellect is to establish relations. It is an attempt to introduce unity in the field of diversity.

Intellect turns towards solidity and it avails to act on mobility as it is not fitted to act on mobility. Reality is immobile or static for the intellect. Intellect always operates on solidity and immobility. And when it wants to form the idea of movement, it constructs movement out of immobilities. Intellect conceives an object only in its static and divisible states. It fails to grasp the continuity and the dynamic nature of things.

Intellect is not intended to think of evolution. Intellectual field is limited to the static series of states. These series of static states which the intellect deals with are homogenous and unchanging. In whatever way we try to imitate change and continuity in their isolation, our thought is incapable of conceiving the becoming. Bergson writes:

"... if to begin with we have supposed that immobility can be a reality, movement will slip through our fingers when we think we have it." ^2

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1 Bergson, The Creative Evolution, p 156
2 Bergson, The Creative Mind, pp 171-172
Intuition:

Intuition is direct vision. Bergson writes "In order to know the reality as it is and to have precise knowledge, there is only one method open and that is direct vision, or intuition." Intuition gives the reality as it is without any intervening veil. He explains this position by the following example: A ray of light when seen by itself is one pure beam of white light. But when it is passed through a prism it breaks up into seven rainbow colours. The prism acts as a barrier and does not enable us to see the pure ray of light as it is. In the same manner, language, intellectual concepts and prejudices act as the prism and prevent us from seeing the reality as it is. Intuition removes all these barriers and enables us to see the reality in all its nakedness.

Intuition often behaves in speculative matters like the demon of Socrates in practical life.

Bergson further compares intuition with the 'Original cell which divides and multiplies itself to form the organism'. We are endowed with intuitions now and then, which have to be kept together and preserved. The successive intuitions are not merely additive but integral to one another. They, as a matter of fact, constitute together one developing, growing, revealing intuition.

1 Bergson, The Creative Mind, pp 28-29
2 Ibid., p. 129
As different multiplying cells form one body the several fleeting intuitions form one intuition. And as the organism goes through different stages of development, intuitions can be of various depths. Bergson admits different depths of philosophical intuition and consequently different degrees of intensity. Accordingly we have different levels of clarity of the reality.

Intuition is not mere imagination. It is based on material knowledge. At the same time it is not the product of a synthesis of material knowledge, but like the direct insight of a scientist or a poet. Intuition is like the 'tension of the spring' in a clock. This tension is not seen; we see only the movement of a clock. Language is inadequate to express what is obtained in intuition yet we have to depend upon language, symbols and concepts to convey the content of intuition. Symbolism distorts the intuitive knowledge. That is why the intuition is obtained in an instant, but the efforts to explain it have been taking centuries by making use of varied concepts.

Finally intuition has a vision of the reality from within. 'Absolute and infinite when viewed from within are simple.' Intuition is what attains the spirit, duration, pure change.
which he identifies with pure duration. It is only intuition which can give us this vision of the reality. The intellect breaks up the flowing reality into static states and out of these static states tries to reconstruct change but fails to do so. The intellect can deal with matter but not with mind, which is duration. Intellect can best operate as long as it deals with matter, but it is never at ease when it comes to the mind. It tries to explain everything in terms of material science. Bergson takes the example of biology and says: "In biology the intellect cannot deal with the vital force of life, but reduces life to a physico-chemical process. This reality of vital force is obtained in intuition only.

It might be remarked in passing that Bergson in a way places instinct on par with intuition. Instinct, 'is moulded on the very form of life.' \(^2\) Instinct is turned towards life and could be the key to vital operations. Bergson says: "by intuition I mean instinct that has become disinterested, self-conscious, capable of reflecting upon its object and of enlarging it indefinitely." \(^3\) In the light of his epistemology, let us now pass on to study his views on time and change.

**Alloyed-Time:**

Every dynamic philosophy is wedded to a theory of time. Bergson's philosophy is also dynamic and has a conception of

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1. Bergson, *Creative Evolution*, p 33
2. Ibid., p 174
3. Ibid., p 185
time of its own. To begin with, Bergson distinguishes between alloyed time and unalloyed time. He holds that the unalloyed time is the pure time and the real time; whereas the alloyed time is time alloyed with space. Bergson writes "there are two possible conceptions of time, the one free from all alloy, the other surreptitiously bringing in the idea of space."¹

We shall first consider the alloyed time. Bergson points out that the classical philosophers treated space and time on par, as they were of the view that whatever applies to and is said about space is also applicable to can be said of time. They reduced succession in time to positions in space and considered time in terms of space. Bergson is of the opinion that this is wrong. He differentiates space from time. Bergson writes "to put duration in space is really to contradict oneself and place succession within simultaneity."²

It is helpful to know Bergson's views on space to understand his notion of the alloyed time. He says 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 qualitative differentiation and consequently it is a reality with no quality.³ Space is homogenous and functions as a principle of differentiation. Objects in space form a discrete multiplicity.

¹ Bergson, Time and Free Will, p. 160
² Ibid., p 227
³ Ibid., p 95
There is no duration or succession in space. There is only simultaneity. It would mean that space is static. It can be represented by a line and can be limited. Space is also divisible. Positions in space are static, simultaneous, and reversible. Whereas moments of time are dynamic successive and irreversible.

Alloyed time is obtained by projecting time into space and when duration is expressed in terms of extensity. This time is referred to in terms of numbers. It is quantified and is subject to measurement. This is what we ordinarily mean by time as given by clocks. Finally, Bergson holds 'that time, conceived under the form of an unbounded and homogeneous medium, is nothing but the ghost of space haunting the reflective consciousness.' Pure time is devoid of extensity and we cannot make extensity out of duration.

Bergson writes 'Pure duration is the form which the succession of our conscious states assumes when our ego lets itself live, when it refrains from separating its present state from its former states.' Pure or unalloyed time is a 'form'; and the form must always have a content.

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1 Bergson, Time and Free Will, p 99
*The word *duree is preferable to 'duration' as the latter word has a different connotation in English language from what Bergson suggests. Hence hereafter I shall use the word *duree to indicate pure time.
2 Bergson, Time and Free Will, p. 100
In the above definition of time, content is the successive conscious states. These successive states are inseparable. They penetrate into one another. They penetrate (permeate) in such a way that they cannot be differentiated from one another. To borrow Bradley's expression 'the parts can be distinguished but not differentiated.' Thus pure duration is a continuity. There are parts but they are inseparable. There is heterogeneity and yet continuity.

Pure time can be understood with reference to the ego or self only. Bergson says that 'the ego should let itself live', in order to get pure time.

Bergson explains the durée with reference to a musical tune. A musical tune is one continuous whole. No doubt there are several notes in a tune succeeding one another. These notes are heterogeneous. They constitute and make the musical tune. All the notes permeate one another and form a continuous whole. The continuity and oneness of the musical tune is specially understood when the rhythm is broken by prolonging or cutting short any one note. Any one note can make the whole difference for a tune and make it a different one. The tune stands as a whole or is one unit. The musical tune stands or falls as one. In the same manner pure time should be understood as a continuous unbroken duration. 'The ego', forms both the past and the present states into an organic whole, as happens when we recall the notes of a tune.
melting, so to speak, into one another.

The notes of a musical tune interpenetrate and stand together to make a tune. They are indistinguishable in the tune into which they melt, yet there is no doubt that they are successive. We can thus conceive of succession without distinction, and think of it as a mutual penetration, an interconnexion and organisation of elements, each one of which represents the whole, and cannot be distinguished or isolated from it except by abstract thought.

The phrase 'each one of which represents the whole' may be further explained: every note in the musical tune is a note of the tune. Independently it has no significance and meaning. A note acquires value by its place among the notes of a tune, and in turn contributes its share for the whole musical tune. In a sense, a note represents the whole musical tune in so far as the note is spoken of as a 'note of the tune'.

This is also true with regard to time. Every part of duration is duration. Any part of time is time and reveals all the characteristics of time.

Here it is important to remember that such an account of time is given by a self which synthesises its own successive states of consciousness. Bergson writes: 'such is the account of duration which would be given by a being who was ever the same and ever changing and who had no idea of space.'

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1. Bergson, Time and Free Will, p 100
2. Ibid., p 101
3. Ibid., p 101
Pure time is inextricably mixed up with the self. Pure time is the time devoid of space. We usually think of time and space together and consider the duration in terms of spatial length. Pure time can never be expressed in terms of space and when time is mixed up with space the result is the 'ghostification of time'.

Pure time is a quality and cannot be expressed quantitatively. A quantity is measurable and we can measure only that which is static. That which is ever changing can never be quantified and measured. Anything to be measurable must have limits. Quantification requires limits. As the essence of durée is to pass by and has no boundaries it can never be quantified and measured. To say that a particular thing is X units is to take that thing as static and as having certain limits. Time whose essence is flux cannot be quantified.

Further anything to be measurable must be spatial. We are able to say that a given length is two metres as it is possible to place a meter scale along with the given length and measure it. Superimposition of one length over another is necessary for measurement. Only spatial things can be superimposed as they are static. As pure time is devoid of space and has no length of the spatial type, it can never be measured. One unit of duration cannot be superimposed on another unit of duration. This is an utter impossibility. The ever flowing time is pure quality and can never be
obtained as a static unit of certain quantity

Bergson writes, pure duration, that which consciousness perceives, must thus be reckoned among the so-called intensive magnitudes, if intensities can be called magnitudes, strictly speaking, however, it is not a quantity, and as soon as we try to measure it, we unwittingly replace it by space. Bergson holds that time cannot be quantified or measured as anything to be measured should be spatial, static and divisible. Dürre is not spatial and it is dynamic and indivisible continuity. Spatiality appears to be the main requirement for measurement as the spatial is static and divisible. Bergson maintains that pure time has nothing to do with space.

Thus there is a fundamental difference between the mathematical treatment of time and Dürre. In mathematics time is taken as being extended like a line. Bergson points out certain fundamental differences between a line which is spatial and Dürre.

(i) A line is static whereas time is dynamic
(ii) A line is limited whereas time is not limited
(iii) A line is a whole whereas time is never such a whole

Because of these fundamental differences it follows that mathematical time which is measurable is spatialised and static whereas pure time is dynamic with no spatial characteristics.

1. Bergson, Time and Free Will, p 106
Bergson's Exposition of Change:

Bergson gives an exposition of change on the same lines as he explains Durée. He even identifies Durée with change. Such an identification is an important characteristic of Bergson's philosophy. He writes "Change is far more radical than we are at first inclined to suppose." He holds "that what was considered as movement and change by Zeno first, and then by metaphysicists in general, is neither change nor movement, that of change they retained what does not change, and of movement what does not move, that they took for an immediate and complete perception of movement and change a crystallisation of this perception, solidification with an eye to practice." So his main task is to see real change or change by itself. In order to do so, Bergson points out that we have to adopt the right method, and philosophers in general missed the real change as they made use of a 'wrong method.' Bergson is of the opinion that defect of misperception of change lies not in philosophers but in their method.

Ordinarily it is held that we could grasp movement indirectly in terms of a moving thing. But this was fatal as it ended in contradictions. Classical philosophers thought "that contradictions were inherent in change itself and in order to avoid this contradiction one had to set out of the sphere of change and lift oneself above Time." They tried

1. Bergson, The Creative Evolution, p 1
2. Bergson, The Creative Mind, p 165
3. Ibid., p 165.
4. Ibid., pp. 165-166.
to see and grasp change from outside and hence failed in their attempt. In order to see change one should grasp change from within.

Bergson suggested that we have to grasp change and duration in its 'original mobility.' This is possible only when we enter into duration i.e., when we realise ourselves enduring. There is no duration as such in the absolute sense. Newton postulated an independent absolute time. It is static and can be quantified. It is measurable. Bergson considers it to be the ghost of time being spatial. Real time or durée is a synthesis of one's own conscious states. The individual self endures and thus knows what endurance or durée is. There is no other way of knowing the durée.

We can distinguish two meanings of change: (1) Change in physical things and (2) Change as reality. The first type of change is a process in which a thing undergoes transmission from one state to another due to the influence of conditions like force, light and heat. For example, a piece of iron when heated becomes red hot and expands. A cueball when hit, moves or changes its place on the table. Change as reality is pure change and this is the basic underlying substance of the creative universe.

1 Bergson, The Creative Mind, p. 167.
Indisibility of change:

Bergson holds that change and movement are indivisible. He considers change and movement in identical terms and explains indivisibility as follows. If one moves his hand from A to B, it is one simple movement. If he stops at a point C in between and then proceeds to B, it will be two movements (i) A to C; and (ii) C to B. This may be diagrammatically represented as follows:

The single movement in Fig. I is broken up into two in Fig. II, by virtue of stopping at C before reaching B. In other words any act of movement is one whole. It is indivisible and implies continuity. It is an unbroken
continuity. If it is broken it is no more one movement but two or more depending upon the number of breaks.

We ordinarily consider movement as being divisible. This view of divisibility of movement is explained by Bergson as follows. We consider movement as a line in space; and as space is divisible, we hold that movement is also divisible. Actually what we divide is only space, not movement. Movement takes place in space and ordinarily we do not distinguish between 'movement' and space. Movement no doubt presupposes space; but one is different from the other. When we divide, we actually divide space but not movement. Due to prejudice to which an unthinking mind is prone to, movement which is dynamic is identified with space which is static. We divide space and wrongly think that we are dividing movement. Due to this error, there is a lot of confusion and the real movement is lost. Therefore to grasp movement it is necessary to try to grasp it as such.

Bergson considers movement as an act and as such it is indivisible. He says 'we attribute to the motion the divisibility of space which it traverses, forgetting that it is quite possible to divide an object, but not an act.'

Any attempt to divide the indivisible movement by considering movement as a chain or a line in space leads to...

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1 Bergson, Time and Free will, p 112
contradictions and puzzles and problems like Zeno's paradoxes. It also gives rise to antinomies of space and time. Bergson says that we have to see movement by itself as a single whole in order to understand it.

We quantify and measure movement as it serves our practical needs. In physics we want to calculate velocity, acceleration etc., of a moving body which we can get by the measurement of movement. Calculations of movement are necessary for the progress of science and are also of practical utility in daily life.

Bergson points out another source of error in understanding movement. We do not get a correct notion of movement as we proceed from the wrong end. We start with discrete states which are spatial and static, combining which we attempt to get motion. Such a synthesis of static states can never give us movement. Movement is not constituted by immovable parts. Movement is one single continuous act. Motion is indivisible and intuition alone can give such an idea of motion.

So we have to carefully distinguish two elements in motion. (i) The space traversed; and (ii) the act by which we traverse it, "the successive positions and the synthesis of these positions." Action is real only to a consciousness. It can neither be spatialised, nor quantified.

1. Bergson, Time and Free Will, p 112
Pure Change:

Now let us consider Bergson's concept of pure change. Bergson writes "There are changes, but there are underneath the change no things which change; Change has no need of a support." This view of Bergson evidently shows that change itself is the ultimate reality for him. He is opposed to the view that change is an accidental characteristic of things. Pure change is not attached to a thing and we can see it as such if we do not spatialise it. We can see real change when we do not superimpose spatial images on change. Bergson says that the idea that change requires a substance is suggested by physical science. Science begins with the idea of substance as a support to mobility. Movement is a movement of a thing. In other words, movement or change is a convenient scheme for science whereas change is reality itself for Bergson.

The continuity of change is very well realised in inner life. Bergson is of the opinion that if we think that change consists of states, we cannot obtain continuity where there is no continuity, we get a wrong notion of change and it leads to certain problems.

Change is inevitable for a living being. Endurance implies transmission or change. In the words of Bergson, it is just like a 'Snow ball on the snow.' He stresses this point when he says, "the truth is that we change without

1. Bergson, The Creative Mind, p. 175
ceasing, and that the state itself is nothing but change. It means that (i) change is continuous, and there is no essential difference between passing from one state to another and persisting in the same state.

Bergson at length argues 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. Bergson more explicitly states that the psychic life which we perceive internally is made up of the stuff of time. He writes, 'real duration is that duration which gnaws on things, and leaves on them the mark of its tooth. If everything is in time, everything changes inwardly, and the same concrete reality never recurs.'

The above quotations of Bergson clearly show how he identified Duress (emphasised in 'Time and Free will') with pure change or endurance of being. His views on time and change are different from that of the classical notions. Time is not made up of moments of time and change is not made up of states.

According to Bergson "the real whole might well be an indivisible continuity, the system we cut out within it,"

1. Bergson, The Creative Evolution, p 2
2. Ibid, p 4
3. Ibid, p 4
4. Ibid, p 48
would, properly speaking, not then be part at all
They would be partial views of the whole.\(^1\)

Change for him is not displacement of parts which
themselves do not undergo change. One might say that the
change of a composite object is by the displacement of
its parts. Bergson holds that in such a process, repetition
is possible where there is repetition, there is no history
Accordingly in such types of change there is no creation
and where there is no creation there is no history.\(^2\)

Bergson also attributed subjectivity to the concept
of change. A conscious being only can perceive one's own
existence. "Existence is change; to change is to mature,
to mature is to go on creating oneself endlessly.\(^3\) He also
said that the existence of a living being and duration are
coevals as he writes wherever anything lives, there is,
only somewhere, a register in which time is being inscribed.\(^4\)

A critical evaluation of Bergson's view of Change

The philosophy of Bergson no doubt implies that change
is identical with durée, i.e., pure time. Change is a
fundamental law of a living being. Here the following
questions arise: Does Bergson admit change of an object?

1. Bergson, Creative Evolution, p. 32
2. Ibid., p. 9
3. Ibid., p. 18
4. Ibid., p. 17
qualitative or quantitative? does he identify that type of
time with durée or pure time? the answer may be like this
there is no change of a whole apart from change of its parts
further though the parts and the whole may be distinguished
from a theoretical point of view, they may not really exist
separately. however, if a distinction is made between the
parts and the whole it can be said that the parts change
and consequently the whole changes. reality which is
composed of these parts changes as a whole continuously.

further if we take the material universe to be
identical with bergson's description of reality, as a river
without bottom and without banks and flowing without assign-
able force in a direction one cannot define, he ought to
identify durée with change of the material universe as a
whole at least at the whole consists of parts. unless
bergson denies parts he cannot possibly deny the identifi-
cation of durée with the change of the physical objects.
in his writings there is no clear indication whether he
would accept the individual physical objects or not.

though he speaks of one reality, sometimes he clearly
gives expression to his having accepted two realities, i.e.,
spirit and matter. in characterization of the reality
as an ascending and a descending process he seems to accept
matter (the descending process) as a fact. if he accepts
matter, of course, he does not accept static matter, but

1 bergson, the creative mind, p. 220
2. bergson, matter and memory, p. xi.
matter in dynamic form. There again he seems to identify change or duree with change of the physical object or physical matter.

However, the notion of identifying duree with change in an object, does not appear to be sound because in the change of an object there is something permanent which does not undergo change. For example: A piece of gold when made into a disc or drawn into a wire undergoes change, yet gold as such with all its characteristics remains the same. This identity is interpreted as identity in the midst of change. Unless there is something permanent the changed thing cannot be identified as that which has changed. So a permanent substratum which continues to be the same in the midst of change seems to be not only a physical fact but also a logical necessity when change is ordinarily understood as the change of a physical object. This aspect of change has been very well brought out in the Sānkhyā system of Indian Philosophy. The Sānkhyā theory of is arising from their doctrine of satkāryavāda states that in all cases of change, there is a continuing substratum. For example: when milk becomes curds, the effect curds is not a new creation entirely different from milk, but is obtained by transformation of some of the qualities of milk.
Views of Bergson and Alexander compared:

Alexander's criticism of Bergson is relevant at this juncture. Alexander accepts the proposition of Bergson that movement does not imply something which moves; but he is not prepared to accept Bergson's position that 'change needs no support.' Evidently Alexander makes a distinction between 'motion' and 'change' whereas Bergson identifies the two. This is due to his ontological standpoint that motion is a fundamental constituent of things. According to him 'Everything is a motion, a space-time.' Movement is anterior to things which are complexes of movements, and it is quite true that, that movement is a stuff of which things are made and is not a mere relation between things which already exist and are said to move. Alexander postulated space, time and movement as the basis out of which all other things are formed.

Here is a fundamental difference between Bergson and Alexander. Bergson does not postulate any primitive stuff as the starting point or the basis of the evolutionary process. He speaks of the Reality as a continuous process of evolution which is creative. So the question of the original stuff out of which all other things are formed or evolved does not seem to arise for Bergson. He holds that reality is pure change. Alexander says that we should think of an original stuff and cites the example of Harcasitus.

1. Alexander, Space, Time and Deity p 320
2. Ibid, p. 329.
who held the same views as Bergson vis à vis, the philosophy of universal flux and said that 'fire' is the substance out of which everything else is formed. Alexander finds Bergson's philosophy to be defective as his pure change cannot take the place of 'fire' of Heraclitus and justifies his (Alexander's) own position that 'bare motion' does supply that which is wanting in Bergson's philosophy. To put it in his own words, for Heraclitus, of whom in Bergson is the modern representative, as for the other lonians, there was a stuff in which change occurred or which embodied change and it was fire. But bare change cannot take the place of fire. On the other hand bare motion or space, time can

apart from the concept of original stuff, difference of opinion between Bergson and Alexander is not beyond repair. Bergson would not see any difference between pure change and pure motion as he considers motion to be a type of change. Alexander as he somehow thinks that change is only change of a thing. Change is empirical and we can never think of change apart from being empirical. He writes 'change always involves empirical elements. It is a transition from one empirical determination to another'.

Alexander seems to have failed to notice that, if change is empirical and requires a thing, movement also is empirical and requires a thing. Malio Lapeck gives support to such a view when he says 'motion occurs in time without being

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1. Alexander, Space, Time and Reality, p 330
2. Ibid., p 328
identical with time itself. The very possibility of a body being at rest during a certain interval of time shows plainly the logical as well as the physical separability of time and motion. Space and time are containers of motion, but its vehicle, that is, a thing which moves, can only be a material body.

Bergson thinks that change is all pervasive, whereas Alexander holds that change is not pervasive, for, there may be persistence without change; as in the persistence of a quality, or . . . in the case of a uniform motion. Bergson says, the truth is that we change without ceasing and that the state itself is nothing but change. The 'state' in Bergson's quotation is equivalent to persistence in Alexander's. Perhaps difference between the two is due to the difference in method or standpoint from which they look at it. Bergson adopts intuition or looking from 'within' whereas Alexander adopts intellect or looking from 'without'. So both of them seem to be correct from their points of view. In Bergson's view that pure change is an 'activity' and that 'motion' is a type of change is accepted, differences between Bergson and Alexander could be ignored.

Bergson holds that pure time is real and alloyed time is unreal. He identifies pure time with pure change. Then, 'physical' change unreal like the spatial.

1. Millic Capek, The Philosophical Impact of Contemporary Physics, p. 69
2. Alexander, Space, Time and Deity, p. 328
water becoming steam or a poker becoming hot are considered to be instances of change. Bergson is aware of this type of empirical change. This is given to us by the intellect and serves a practical purpose. Science is concerned with this type of change. This type of change permits gaps and is not continuous. This is to be admitted as an empirical fact as the spatial time. But this type of change does not seem to be on par with the spatial time in some respects.

Spatial time is a quantity (static, extended like a line) and serves a practical purpose. Empirical change or change of a thing also can be obtained as a measured quantity, and serves a practical purpose. However, the relation between pure change and empirical change is not the same as the relationship between pure time and alloyed time. Alloyed time is time alloyed with space and is a ghost of time. Alloyed time is unreal in the sense that it is artificially made to serve the needs of daily life. In other words, alloyed time has no real existence. Pure time as the synthesis of our conscious states is real. In the same manner pure change is a mental synthesis. In addition, change is the characteristic of reality and is also the reality. The difficulty, how can anything be a characteristic and also the reality does not seem to arise for Bergson as he is looking at the question from an ultimate point of view and by intuition from 'within', but not from 'without'. But the question is whether he would accept the
reality of the material world which consists of physical things. If so, he cannot eliminate the empirical change as unreal treating it on par with the alloyed time.

Bergson distinguishes pure movement apart from the thing moving and in the same manner change is to be distinguished from the thing which changes. It is pure change which Bergson accepts. Pure change is a mental synthesis, as change is identified with durée and durée is a mental synthesis. Objectively there is no such thing as change. Change depends upon the synthesizing mind or consciousness and this appears to be the main contribution of Bergson to the understanding of durée. Though Bergson gives an ontological status for pure change in his book, *The Creative Mind*, he evidently holds the whole existence or reality as undergoing change and that change is creative. Hence it appears that Bergson accepts change of the physical objects.

A comparison of Bergson and Buddhist, Nyāya and Sankhya views of change:

Both the Buddhists and Bergson hold a kinetic view of the world and maintain that change is the very law of reality. 'The central conception of Buddhism is a dynamic impersonal flow of existence'¹ where are no permanent things but only momentary existents. Similarly Bergson holds that reality is ever changing and change is indivisible and continuous.

However, Stcherbatsky shows certain differences between Buddhism and Bergson. He writes as follows: "Bergson compared our cognitive apparatus with a cinematograph which reconstitutes a movement out of momentary stabilised snap shots. This is exactly the Buddhist view. But instant neus according to Bergson, is an artificial construction of our thought. 1 Buddhists formulate 'point-instants' to be ultimately real. They explain movement from these point-instants taking the example of mathematical astronomy where motion is constituted out of infinite number of immobilities. Our cognitive apparatus is not only a cinematograph, it also is a natural mathematician. He senses, indeed, even if continuity be admitted can pluck out only instantaneous sensations, and it is the business of the intellect to constitute their continuity. 2 Thus Stcherbatsky points out a fundamental difference between the Buddhists and Bergson and says that they hold opposite views inspite of their common dynamic philosophy.

Prof. M. Hiriyama finds an identity of views between Bergson and the Buddhists. He writes as follows: Neither being nor non-being is the truth, according to Buddha, but only becoming. From this we should not conclude that he denied reality. He did admit it, but only gave a dynamic explanation of it. There is incessant change, but at the

2. Ibid., p. 118
same time there is nothing that changes. 'There is action, but no agent.' Language almost fails to give expression to this view, the like of which is known only twice in the history of philosophy—once in Greece when Heraclitus taught a generation or two later than Buddha and again in our own time in the philosophy of Bergson. 

Buddhists construct change and movement out of immobilities. The immobile point-instants are the starting point of Buddhists and they are real, whereas for Bergson the reality is dynamic and even changing and the brakes and static states are the consequence of splitting up of the continuity by the intellect. Bergson holds that change consists in the production of the new. Buddhists also hold that change brings about a new entity. Thus though the starting point of the Buddhist is different from that of Bergson, both of them agree that the changed entity is different from the original and it is a new creation. But the question is, what is the extent to which the changed entity is new. There is a fundamental difference between the two with regard to the sense in which it is new. Buddhists hold that there is no continuity between the original and the new entity, whereas Bergson maintains that there is a continuity between the two.

At this stage a reference might be made to the Nyāya vaśesika view of change (ārambhavāda) who also advocates

1. M. Hiriyamma, Outlines of Indian Philosophy, p. 142
that the changed entity is entirely new from that of the original basing his argument on the doctrine of asatkāryavāda. The effect (changed entity) is new as it does not pre-exist in the cause (the original) at the same time cause and effect are considered to be wholes (avyayāvins) with parts. In causal operation parts of the cause are re-arranged and as a result the effect as a whole which is entirely new from that of the cause emerges. Thus it is the whole (avyayāvin) which is a new creation. For example, cloth (effect) is obtained by a re-arrangement of the threads (cause). The threads continue to be in the cloth though the effect is new in Nyaya-vaiśeṣika as in Buddhism, there is a continuity between the cause and the effect in terms of parts of the whole unlike in Buddhism in which any entity has only a point-instant existence and consequently there is no such continuity from one point-instant to another as obtained in the Nyaya Vaiśeṣika.

Bergson's notion of change is more analogous to the Nyaya-Vaiśeṣika point of view though the latter does not advocate a philosophy of constant flux. However, it should be noted that Bergson is speaking of change of the whole existence of the reality as a whole and also in terms of the parts of that whole, whereas the Nyaya Vaiśeṣika view is confined to the individual particular objects only. Any way as far as the notion of change is concerned we note that continuity which is very essential for change is found both
in Bergson and Ayana Vaisesika.

The continuing substrate which is very fundamental for change is much emphasised in the paripūramada of ankhya than anywhere else. Continuing substrate is essential for changes as otherwise we can never say that X is changed into Y; or milk is changed into curds. Sāṅkhya view maintains very clearly that change is partial and the process of change makes explicit what is implicitly contained in the original. In the example cited above curd is already contained in milk and that is why milk can be transformed into curd; otherwise curd can never be obtained from milk. Though Bergson does not speak so explicitly about change of the physical objects, I hold that his emphasis on an unbroken continuity in change is very close to the Sāṅkhya notion. Further Bergson maintains that the very nature of the reality is change which view again lends support to the Sāṅkhya view of continuous evolution of 'prakṛti' into the world of things. Prakṛti of Sāṅkhya is never static, even when the world of things are dissolved the three constitutive parts of prakṛti continues to be active.*

A study of Bergson reveals that we should revise our ordinary notions of time and change. We ordinarily think that time is measurable and time is that which is given by the clocks. Bergson points out that such a notion of time

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*This point is explained in Saruṣa parināma in Chap. p
is alloyed with space and serves its purpose in science. Pure time or Unalloyed time is a mental synthesis. He calls it 'durée' which is realised in the very living and by intuition only. Bergson identifies durée with change. And he holds that the nature of change and movement is unbroken continuity. This is non-spatial. Bergson goes to the extent of saying that change itself in substance and does not require any material support. This again can be known through intuition only.

The anti-intellectualism of Bergson may appear to be mysticism. But intuitionism is not mysticism. Bergson is only pleading to break the traditional prejudices to know the reality and truth. Mystics also aim at knowing the reality. We shall now pass on to study the philosophy of Royce and see what place change occupies in the context of considering reality as the 'absolute'.