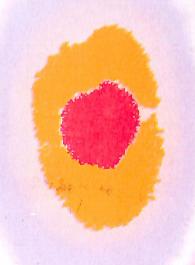
# THE THEORY OF ZERO EXISTENCE

MĀYĀ THE POWER DIVINE



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PRAFULLA KUMAR PANIGRAHI

## The Theory of Zero-Existence

(Mãyã, The Power Divine)

Prafulla Kumar Panigrahi

Sarup & Sons New Delhi-110 002



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I bow my head down at the lotus-feet of Mother Mãyã for having chosen me—an ignorant fool-to speak of her Grand Mystery in this books although there are persons much wiser than I am in all corners of the world.

- The Author

To my wife, Kantiprabha, who has been my faithful companion and is still with me to share the joys and sorrows, as together we pass into the life's sun-set, this book is lovingly dedicated.

- The Author

I am thankful to my daughter, Debahûti, who has inspired me in writing this book and has taken a lot of pains in preparing its script.

- The Author

Ahô! Bhubana Kallolair Vichitrair

Drãk Samutthitam,

Mayyananta Mahãmbodhau

Chittavãté Samudyaté.

— Astavakra Samhitā

How wonderful it is that, with the rise of the mind-hurricane, rise at once numerous universe-waves in me—the Limitless Ocean!

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## **Preface**

The book entitled "The Theory of Zero-Existence" with a subtitle "Mãyã. The Power Divine", propounds a theory that bridges the gap between the findings of higher physics and those of Vedanta Philosophy, and is a post-Bohr analysis of the nature of the universe. It takes the reader differently in each of its chapters, to the very same conclusion of the theory it attempts to establish. It stretches the conclusions of the Theory of Relativity, by their implications, to the very same point where the quantum Theory finally arrives at, and in the process, it answers some of the yet unanswered questions of higher physics, and makes certain discoveries, such as a state of absolute rest. However, it does not concede to some the findings of Einstein in his Theory of Relativity, and, of course, puts forth before the world-intelligentsia a very strong basis for doing so. The "whats and "hows" of Einstein, on the contrary, are also aided by answering their unanswered "whys" and it thus extends and fortifies the views he offers. Based on a solid scientific foundation, this book not only establishes the fact that the world is an illusion, as did the Quantum Mechanics, and of course, the Vedanta Philosophy, but also identifies. the "mother" of this illusory creation, which to our knowledge, no one has done so far. With a simple beginning in the first chapter, it proceeds with an ever-increasing complexity of thought to establish a new theory it advocates. In the first three chapters it creates a base. taking things from established theories of science, and then proceeds to make-out a theory of its own, like that of Einstein and Bohr—all in a scientific analysis. This book, with the new theory it contains. thus opens up a new horizon in human-thought.

Written in a forceful style with a mediaeval structure, the book caters to the need not only of a scientist or a philosopher, but also

of a general reader. It contains seven chapters, and a message for the world, which are covered within one hundred pages-computer printed in demy size. There are also three figurative illustrations, and before the start of the book, a slôka from Astavakra Samhitã.

## 1 Mãyã and her Duality

The action of Mãyã in creating this phenomenal world as the Mother Divine starts with the formation of the Cosmic Egg, and when the gestation period of this pregnancy was over, this universe was given birth to with the Big-Bang. It is not that the Cosmic Egg was hanging somewhere in the space at 'that time', for there was no space nor time; and all this came into being only with the Big-Bang. The question as to where and how, then, the egg was floating is redundant to the context of our discussion, and we shall experience no difficulty in presenting Mãyã and her duality, even if we skip over the answer.

## Horizontal Duality

The phenomenal world sometimes after its birth, appeared in its macro-aspect to have been composed of two opposite and contradictory entities: material objects and non-material sky, although they were actually complementary to each other in its formation. Non-material sky, which we call space, has long been considered wrongly to be a void that represents *nothingness*. But in fact the space is a positive creation and can not be *nothing*. But if one questions the very fact of its 'creation' in keeping with the theory of Steady State Universe as Herman Bondi and others put it, we can very well bring out the validity of the Big-Bang creation over that of the Steady State Universe by bringing out the proofs known to the world of Physical Science. The modern physicist,

however, thinks that the void, which we call *Vyoma* in Indian Philosophy and consider it as one of the five primary formations of the universe, actually contains the all-pervading Field that gets metamorphosed into the matter-particle including energy. This also we do not concede to, for it is based on a pre-supposition that the space is a void. This pre-supposition leads the modern physicist to think that the Field is contained in the void. But no. The *Vyoma* itself is the Field. Only because we have no sense organ to experience the *Vyoma*, it would not be proper to consider it a void, for it is a positive creation like the material ones. And a positive creation was made with certain purpose, which, therefore, can not be a *nihil*. Of course, it has no attributes for our sense organ to catch it; but that does not necessarily mean that it is a *nomena*.

The modern physicist believes that there are a number of Quantum Fields and Gravitational Fields, each of which pervades the entire space. The idea of Quantum Mechanics and that of Relativity gave rise to the idea of Quantum Field. Both these ideas together forced the modern physicist to construct a mathematical theory of Quantum Field where it was found that an elementary particle arises out of the fluctuations in a Quantum Field. Different Quantum Fields coexisting in the entire space, produce different quantum particles out of their fluctuations which this physical world is made up of. The elementary particle is not a result of the fluctuations of the Quantum Field; rather the particle is its metamorphosis.

But I suppose that the space itself behaves differently even in the same area, like an electron -the daughter of the space-behaving differently as a wave and as a particle under different circumstances; and each such behavior is taken by the physicist as a separate Field. And in its fluctuations in that particular behavior, a specific type of particle corresponding to that behavior is given birth to.

The notion that the whole space is filled in by ether, which supports propagation of light as the medium, is no longer valid, and it disappeared from our thought with the appearance of the Theory of Relativity, and other discoveries of Einstein. In an analogous manner it is now being told that the space is entirely filled in with the Field. But call it a Field or space or sky or *Vyôma* as it suits you, but it is the very same thing that exists, and exists

not merely as a concept but also in reality that gets metamorphosed into a particle as a positive product. So one of the principles the phenomenal world is made up of is that which is *not material*, and therefore beyond the direct experience of our sense organs.

The other one, in sharp contrast to it, is the *physical world* with its galaxies and stars, mountains and valleys, oceans and lands, plants and animals, all of which are made up of atoms and subatomic objects. It includes also the energy in this category, and appears to our experience with varieties in it. There are objects as small as electrons, and as large as our Milky Way or something still larger. There are formations, modifications and transformations, death, decay and many more.

Whe one composing principle presents nothing of itself, the other, in opposition to this, comes forward to present itself with varieties of shape, size, colour and so on...And the phenomenal world stands composed in the threshold of this duality and in complementarity of two opposing principles.

Now if we take a glance at the physical world before us, the same duality will again come to our notice. It is also composed of two opposing principles: *matter and energy*. Whereas a matter is something discrete and discontinuous, energy is a flow, and it is continuous in its very nature. The position of a matter along with its volume is definite, but the same for the energy is not. We need not discuss the opposing characters found in matter and energy in detail, as for the present, our emphasis is not on the opposite characters found in each of the two opposing principles that go for the composition of the physical world, but only on the fact of their opposition itself. These two opposing principles connive to remain in complementarity to each other so as to compose the physical world.

The fundamental building block for the world of matter is an atom. Matters of any name, size or shape found in the world are composed of atoms only. Atoms, of course, are of different types and all such atoms are grouped in one type whose number of electrons is found to be same when taken individually. The atoms collide with one another, and in the process, they form molecules of different matters, if their type differs. Thus, the elements like iron, carbon, oxygen etc. (whose number has reached by now the figure of 105) were formed, as each of them has been created by atom of the same type. Atoms differing in their type

created in-numerable material objects of the world through molecules resulting out of their collusion.

And such an atom -the fundamental building-block of the material world—has also been created by two opposing principles: protons and electrons. With the protons at the centre, the electrons are orbiting around as the planets in the solar system. While the protons are a plus charge, the minus charge is the electron; and the atom itself, therefore, is of a neutral charge or no charge. Thus there exists not only a duality in atom itself that composes the whole material world, but the duality has been created similarly by two opposing principles: one with a positive charge and the other with a negative one.

The material world born out of such atoms, presents the same duality in each mode of its creation. The living objects, and the non-Jiving ones go with a duality to present the picture of the material world. Even we as the living ones, are subject to a duality of a body and a mind, which too are contradictory to each other in their nature. In a similar way the nonliving area, as stated, is seen with a duality of matter and energy; and the living-world is composed of another duality formed by plants on one hand. and animals on the other. And with the higher animals one is a male, and the other is a female. If we proceed thus to examine each phenomenon of the world, we shall not fail to notice a duality in each step of our examination, and the duality is formed always by two opposing principles.

Whatever we have said so far relates to a horizontal dualism where two opposing principles, standing horizontally one with the other, together, constitute a one-single-whole. The description of duality as a keynote of creation shall not be complete, if we do not describe the vertical duality that prevails upon each singular whole and each singular category in the creation of the phenomenal world.

## Vertical Duality

We may now present a peculiar type of duality prevailing upon the whole phenomenal world. This is a vertical duality, which can be noticed with any phenomenon of the world. We may pick up any object, say a man, named Ram, at random, and examine the same carefully. It is known that Ram is made up of biological cells. These cells are discrete quanta: One cell is separated from the other, and each cell is a separate entity by itself. They are discontinuous, discrete and can be counted as one, two, three four... These separated, discrete, discontinuous cells, which Ram is made up of, die out every moment in millions, and new cells are born with a similar number. Perhaps none of the cells, which Ram was made up of when he was only one day old, is still present with him when he is an old man in his sixties. But yet Ram lives continuously in and through all these sixty years of life. There was no time or age when there was a gap in his living. The identity of this man, Ram, remains the same uninterruptedly with him till his death. And all the time between the birth and death, he lives with a continuous identity.

The water particles that form a wave in the sea obey laws that govern a water particle. But it is wonderful that the wave itself which is made up of water particles does not obey these laws—rather it obeys some other law—the law of hydrodynamics—that governs the waves. Similarly, Ram, who is made up of biological cells, does not obey the physical or chemical laws that govern the cells, rather obeys the law—the law of genetics—that governs a living body. Ram did not die with death of those discrete cells, which were present with him some sixty years ago. A continuous Ram passes through his infancy, his boyhood, his youth, and now he is an old man in his sixties, and shall die after some years.

A very orderly cell-structure that otherwise goes by the name and identity of Ram, has its own world to live in, own natural laws to obey, own life pattern and own life style, which is distinct and different from those found in this continuous Ram. The life pattern of a cell in Ram, and the Ram with a continuous identity, are quite different. But yet the cellular and discontinuous Ram and the continuous Ram simultaneously exist with two separate existence in one and the same object, called Ram. These two orders of separate existence, one superimposed upon the other, go a long way to form this wonderful creature, Ram. Ram, as a cellular being is quite discontinuous in its whole constitution, while he, as the human Ram is having a continuous existence. He is discontinuous on one hand and continuous on the other. But this is only an example of a vertical duality prevailing upon the whole creation. It is vertical, because the second does not stand along with the first object—rather the first object itself is the second object in this duality.

To illustrate further the principle of vertical duality that runs with any single event in the chain of creation, we may take something at random from the non-living world too. We may take light—a form of energy—for the purpose. Light was supposed to be a wave, as it behaves with all parameters of wave. Subsequently it was confirmed to be so in the world of physics with an observation of dark-and-light bands in the spectral screen by Thomas Young, which was ascribed to the 'interference' of the light-wave. As interference is possible only with a wave, and not with a particle, light was proved to be a wave. Light was found also to be a particle by Max Plunk who found that light is given off by the radiating body in discrete quanta. Einstein confirmed this discovery in his explanation for the Photo-Electric effect. Thus light was found to be a wave as well as a particle at the same time. And as we all know a particle and a wave stand opposed to each other, so far as their nature and characteristics are concerned. But inspite of this antagonism, light as a single invisible entity is a creation in the vertical threshold of these two opposing principles. It is wonderful that light-wave is also a lightparticle at the same time, and that it is discontinuous as a particle and, at the same time it is continuous as a wave. The first partner is also the second partner in the pair, and they together form a singularity, which we call light.

Similar is the case with an electron. Neils Bohr supposed that the electron is a particle. This supposition was confirmed in an experiment in the Wilson Cloud Chamber. But surprisingly, de Broglie could find out the wavelength of electron, which indicated that electron is also a wave. And this too was experimentally confirmed by Johnson when he discovered that electron is capable of 'interference' and 'diffractions'—properties which could be observed only with a wave. We have seen a wave-matter in light, and now we find a matter-wave in electron. This electron is also a discrete and discontinuous particle, and, at the same time, a continuous waves as well. If we remember the famous equation of Einstein, E=MC², we shall be forced to concede that all matters in the world are also energy. They are discontinuous as matter and continuous as energy.

While thus observing the chain of events that go for the constitution of the phenomenal world, we notice that each

something is composed of two opposite and contradictory events, and that the duality is both horizontal and vertical. In a horizontal duality that something, say, matter, on one hand has its *Second*, namely, energy, simultaneously present along with it in the outer world, and this matter is energy itself, on the other. In the horizontal duality, the second partner stands separately by the side of the first partner, but in the vertical duality, the first partner itself is the second partner and one partner is superimposed on the other. In vertical duality one added by another one does not come out as two, rather surprisingly it makes it the same one only.

#### Mãyã and Brahman

But it is all the more surprising that we are not able to observe both the partners at the same time in a vertical duality. When we observe a beam of light that flows like a wave, we do not observe the particleness of it at the same time. The waveness and the particleness of the electron can not also be observed at the same time. In Quantum Theory this fact has been analyzed elaborately. When we observe one attribute say, the matterness, of the object, we are not in a position to observe its energyness. When we observe one attribute say, the matterness we, by the very act of observation, destroy the other attribute, the energyness. When we want to observe Ram as a combination of cells, we make a biopsy of a part of the body, or even the whole body, and by means of a microscope, observe it to be made up of cells. But the very act of this biopsy destroys the continuousness in the existence of Ram, who otherwise would have lived for a much longer time with that continuousness. Similarly, when we want to observe Ram as a continuously living phenomenon, we do not observe any cell in him. Thus one attribute alone can be observed at any given point of time, and not both.

So at this stage of our discussion, one question naturally comes into our mind: What, then, is the object, which stands composed in the threshold of a vertical duality? A matter? No, it is energy also. Then, is it energy? No, it is a matter also. Then it must be both matter and energy. No, because we do not find it to be a matter as well as the energy at the same time. So, what is that 'one' event in the chain that expresses itself in this duality? This vertical duality is exhibited in and through something

nameless, for the matterness and the energyness are only the attributes imposed on that something which is otherwise attributeless.

But before proceeding further in these lines, we need to place in nutshell the concept of Mãyã as propounded by Sankara in Indian Philosophy. Māyā is the power of Brahman, which conceals the reality, and at the same time, superimposes an illusion on it, and in the process creates the phenomenal world, sustains as well as finally destroys it. Thus, we find that Māyā is a concealing power (Avarani Shakti) which conceals the reality on one hand, and she is also a superimposing power (Ãdhãysa Shakti) that superimposes an illusion on the concealed reality, on the other. Thus an illusory something is created on the concealed reality to present that illusory something as an object of perception. There is one real thing which is concealed and there is also one unreal something which is posited in its place. There are various types of superimposition propounded by different schools of Indian Philosophy, but this which we are now talking of, is one where two events are perceived: One, the concealed reality; and the other, an illusion posited in place of reality, and presented as an object of perception. When an illusion of a snake is created on a rope, the reality, namely, the rope is concealed, and an illusory snake is superimposed on the rope to be presented as the object of perception.

Now coming back to our discussion on the vertical duality, we find that the object is not the first partner of the pair as it is also the second partner. It is not the second partner as it is also the first partner. It is also not both the first partner and second partner, as we do not find both of them present at the same time. Then what is that object if not an illusion, if and when we observe it as, say, a dog at one point of time, and as a bird at another point of time, and not as both dog and bird at any point of time? It is neither a dog nor a bird but something inconceivable. The birdness and the dogness of one which is neither a dog nor a bird are attributes which are products of Mãyã. The reality is concealed, and an illusion by way of some attributes is superimposed on the concealed reality, to be presented as an object of perception. And that reality which is concealed by Mãyã is attributeless, and He is the Brahman Himself, who alone exists as One without a Second -nay, He is the Existence itself.

Now going a step backward, we may say that if duality is the very keynote of creation, the phenomenal world must also have its Second, in vertical duality. And that Second must be one with an opposing character to the phenomenal world. It must have no duality in it. It must not have a birth and death. It must not have been created nor would it be destroyed. It must have no modifications, no transformations in it. If the phenomenal world is objective, it must be the Subject. And if the world is an illusion, that must be the Reality itself. Yes, Brahman is all that. He is non-dual -a singularity. He is non-transformable. He alone is the Subject. He alone is the Reality.

And that is *Brahman* who has no *Second*, for the so-called Second is an illusion only. He transcends the world, and exists even if the world doesn't exist. He emanates the world and appears as the world by and through the action of Māyā—the Power Divine.

## 2

## Mãyã and her Tridhãrã

With the total projection that appears before us to the perception of the mind, including, too, the perception and the perceiving mind themselves, bloomed forth this universe with petals of three different colours: The positivity, the nullity and the negativity. These are sharply defined constituents of *Tridhārā*, and, however, do not correspond to the *'Trigûna'* of *Sāmkhya* System of philosophy. *Tridhārā* encompasses the whole universe, and things, actions and ideas that are contained in it.

### Positivity

Positivity is that stream of *Tridhārā* in which the phenomenal objects of the world are found to be in positive existence and, therefore, real. Positivity, therefore, refers to the so-called reality of the objective world. An object is considered to be in real existence when an idea of the object by way of its cognition is formed in the mind, and at the same time, it is experienced as such by the sense organs as well. Positivity again refers to, and is a projection before, the wakeful state, for it is a wakeful state alone that testifies the projection relating to such a reality. Thus when in this wakeful state an idea of the object is formed in the mind with the simultaneous presence of the corresponding object in the outer world, the object is considered to be in real existence.

Thus, the following three conditions are to be satisfied in order to consider something existing in reality—

- 1. An idea of the object is formed in the mind of the observer on the basis of a perception;
- 2. The object of perception is simultaneously present in the outer world to the direct experience of the sense organs;
- 3. The state of the observer in which the object is perceived is a wakeful state.

But while testing the reality of an object one must be careful to see if a sense organ capable of experiencing the object at all exists with the experiencing observer, and if there is adequacy of required external aids, such as lights, instrument etc. If one tries to observe something in a dark night, no idea can be formed relating to the object waiting for observation, owing to the fact that the eves do not experience that object due to inadequate external aid, even if it is very much present before the observer. He shall not be right, if, under such a circumstance, he states that the object does not exist in reality. The wise-man of the recent past believed that the space is a nihil—a complete nothingness. and this belief owes to the fact that the humanity is not provided with a sense organ capable of experiencing the space as an existence. In such cases, and in cases where something stands covering the object meant to be observed, we shall have to take resort to an indirect perception, such as inference. The test of reality of an object, under such circumstances, should base on a logical inference, which again is based on a direct perception of the past of someone else, or of the observer itself.

Such real objects, having a positive existence, may, for our purpose, be taken as *plus-ones*, which not merely is a name, but also is a connotation. Each real object is a plus-one, if its reality stands the above tests. Nevertheless, an idea of an object in the mind having no simultaneous presence of the corresponding object in the outer world is an imagination only, and not a reality. A dream does not represent the reality, as the objects of dream along with their actions are ideas only that go without their corresponding objects present in the outer world to the experience of the sense organ in a wakeful state.

The positivity is full of action. The mind is active with numerous thoughts, the sense organs are active with their numerous experiences, and the objects are active with their transformation and modifications. The whole world is busy with action in the wakeful state of the observer. There is an inertia of

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The positivity is full of action. The mind is active with numerous thoughts, the sense organs are active with their numerous experiences, and the objects are active with their transformation and modifications. The whole world is busy with action in the wakeful state of the observer. There is an inertia of activity everywhere. The activity of the object and the object itself remain inseparable.

#### **Nullity**

Nullity refers to the concept of zero. It therefore is a concept of that which neither exists in the mind as an idea formed on the basis of perception of any object nor does it exist physically in the outer world to the experience of the sense organs in a wakeful state. The sense organ experiences no object, and there also is no idea of any cognition. Neither of the first two conditions applicable in case of those plus-ones in satisfied in and under such a concept and therefore nothing exists in reality under this stream. Nullity is the name of non-existence *per se*. The zero does not exist, and therefore the scientists are yet unable to find out a zero-motion or zero-heat. Naturally, therefore, no activity, no transformation, no modification exist in this area unlike that in positivity.

We may name it 'zero' in the same manner as we called the so-called existence a plus-one.

## Negativity

This is only an idea of mind without a presence of the corresponding object simultaneously in the outer world. An object in negativity does not exist in reality, but only an idea of an actually non-existent object is formed in the mind. A shadow may be taken here for an example. It is often considered by the intellect that a shadow exists as a positive entity. We assert, "there is a shadow" -a positive object. But in reality, no shadow exists. It is only an absence of light -a negation, which creates an illusion of something positive supposed to be present in the outer world by the name of "shadow". A hole in the wall is taken by the mind as a positive something -a positive "hole". There exists an idea of a hole in the mind, and on the basis of this idea a hole is considered to be really present in the outer-world. However, the hole does not exist in reality. What really exists as a hole is a void -a negation of the wall and nothing exists as a hole, and it is really a zero, surrounded by a plus-one -a wall.

We may call an object in negativity a "minus-one".

A minus-one is created when a plus-one acts upon a zero. As stated earlier, a plus-one is a real object of the empirical world whose

reality can be tested by its presence as an idea by way of a cognition in the mind, and its simultaneous presence in the outer -world. We have also stated that a zero is a void, which presents no perceptive cognizance of presence of something objective in the mind, and in reality, there is also no object present in the outside world. What we consider to be a hole is really a zero - a void. This void is wrongly considered as a hole, as something positive, owing to the existence of the wall that surrounds it. The surrounding wall is acting upon the void, and this active plusone results in formation of a minus-one. The minus-one is merely a cognition of something without that cognizable something being present in the outside world. No sense organ experiences a hole. It experiences, if any, only a void. Yet the hole is cognized by the mind as a real existence. We may mark the following sentences—

- Ram goes to school.
- Ram does not go to school.

In the first sentence, the mind cognizes the act of Ram's going to school, and in reality, Ram's going to school is present in the outside world. So, it is a real something -a plus-one. However, "Ram does not go to school" is an idea of the mind, to which no corresponding action positively takes place at the same time in the outside world. Nothing happens when Ram does not go to school. It is therefore something that does not exist positively. It is not a reality, but an idea only - a minus-one. This minus-one was created when "go" -a positive action that remains in the mind as a memory of someone else's going -acts upon" not" -a zero, a void.

Not only do we consider wrongly a minus-one as a plus-one, but also we often go to the extent of cognizing a minus-one as an opposite of a plus-one. A girl is the opposite of a boy, as they are not only different but also antagonistic to each other in some of their features. But both of them exist positively and are real. A boy is a plus-one, and so is a girl. If something be opposite of something else, both of them must exist in the outer world. Then how can darkness be the opposite of light, when it does not exist as a positive entity, itself in reality being an 'absence' of light?' Absence of light is a zero -a void, in the outer world. It is not a plus-one so as to stand opposed to another plus-one, namely, light.

Absence = Zero.

Of = Times.

Light = plus-one.

 $0 \times 1 = 0.$ 

Absence of light is zero.

In order to stand opposed to something that exists in the outer world, the opposing object must also exist in the outer world, and exist as a plus-one. But our mind, as stated earlier, goes to the extent of cognizing a minus-one which exists only in the mind as an idea, and not in the outer world, as a plus-one. Darkness, which is a minus-one being created by the 'light' acting upon a zero, is wrongly considered as a plus-one, and therefore, as an opposite 'object' of light. We should not confuse here between the concepts of 'darkness' and 'absence of light'. Darkness is an idea present in the mind of something existent, but' absence of light' creates no idea in the mind. One is a minus one and the other, a zero.

But let us also not get confused by wrong nomenclature. For instance, while studying electricity we find that there are two opposite charges—a plus charge and a minus charge. But this minus charge is not really a "minus-charge", for it exists positively in the outer world to the experience of the sense organ. Only a name, "minus charge", is given to this plus charge, although non-connotatively.

Both zero and minus-ones are non-existent in the outer world. But they represent two different types of non-existence. Although the minus-one objects are non-existent in the outer world, they exist as ideas in the mind. But the nothingness of zero neither exists in the mind as an idea nor does it exist in the outer world as an object. Minus-one is a cognizance of something non-existent, but there is no cognition for the zero. The Juggler's Show is not enacted in our bedroom. The bedroom is quite empty with a compete nothingness. (Of course except those positively existing there). But, this show is displayed in the Juggler's place and not in the bedroom. We can very well differentiate between nothingness in the Juggler's show and nothingness of an empty room.

And, for the present, we shall also not take those wrong perceptions of mind that come owing to a wrong experience of the sense organs, caused due to extraneous factors, into the category of minus-one. A straight stick appearing bent at the point of water-surface after being half merged in water may be taken as an example for our purpose. This wrong appearance of the stick before the eyes was due to a change of medium in propagation of light -an extraneous factor. Examples of such wrong cognition due to extraneous factors are many. An illusion of a snake in place of a rope is a popular example of this type. These are not our minus-ones that are formed on a zero. In most of such cases, this happens due to a foul play of light. Of course a sick mind or a sick sense organ can. also add to it. The mind itself gets cheated in these cases. But we are speaking of a cheating -mind which is unfaithful and insincere, and presents something as something else, not due to some extraneous factor, nor due to any sickness, but due to its own intrinsic nature.

The whole Cosmos exists in and through this *Tridhārā of Māyā*. It is the whole expression of Māyā, by which the Cosmos has been created with the Big Bang, and is being maintained and shall get into dissolution. It encompasses time and space and also all that exist in time and space.

As such, time is also an expression of Tridhārā. An object at present exists as a plus-one for its simultaneous presence in the outside world. The *chiects of past* are minus-ones, for they remain as ideas only in form of memory, and do not exist simultaneously in the outer world. The future object is not only not known but also not present. And therefore, it is a zero. Time with all the objects it encompasses exists only with these three limbs -past, present and future. The concept of time, by itself, is in reality a minus-one. But it appears as if time exists in the outer world as a positive something. It is an idea only -a mental construct. It is a zero-existence in the outside world, upon which the changing objects of reality—the plus-ones—are acting to create the time—to create this minus-one. So also is the space. We find (of course wrongly) the space to be nothing, because it appears as such, not being experienced by the sense organs. But still we think that the space exists. Under the circumstance this existence of 'space' is only a minus-one existence because in the so-called reality it is a zero and is perceived as 'space' -a positive something -due to the surrounding material world—the plus-ones—acting on that zero. We can easily find a connotative difference between the concepts of 'space' and 'nothingness'.

#### Three States of Existence

Tridhārā also covers the three states of existence. The Jiva (the living individual) has with it a conscious principle, (the Atman), a life principle (Prana), a thinking principle (Manas) and an experiencing principle (Indriyas—the sense organs). When all these four principles are active, the state with which the liva exists is the wakeful state. When one of these principles, namely, the Indrivas lies dormant while the others are as active, the Jiva exists in a dreamful state. The active mind in this state creates many objects and actions without any real corresponding experience of the sense organs. Similarly, when both the mind and the sense organs lie dormant, the state of experience is zero. It is the state of deep sleep. No idea of any object is formed in the mind, and no experience of any outer object does come in this state. The wakeful state is covered by the stream of Positivity, the dreamful by that of Negativity and the deep sleep by Nullity of Tridhara belonging, as it does, to Mãyã.

#### All are Minus-Ones

After this discussion on different streams of *Tridhārā*, there comes the difficult task of its relating to Māyā, which, by its very definition, denotes illusion. And by illusion we mean cognizance of something as something else.

We are now trying to show all these three streams of Maya as only one stream and that is of a minus-one. So we start with the zero. We have stated earlier that zero signifies nothingness. There is no cognition of anything in the mind in this state and no object does also exist outside. But if we go a step further and examine it more closely, something more puzzling would come up. To our intellect a zero concept exists as does a minus-one or a plus-one. 'The zero exists' is an assertion of nothingness. This is a conceptual positivity of nothingness. Although the zeroobject does not exist in the outer world, and although there is no cognition of a zero-object in the outside world, this zero exists as a concept in the mind. We imagine that the zero, the nothingness, the void, exists as a positive entity, and this is an idea of a positive something which does not exist in reality. If by definition the zero does not exist in the mind or in the outer world, how is it that we assert the 'zeroness'? If it exists as an idea and not in the outer world as an object of the wakeful state, it is a minus-one, and not a zero. The human mind can not think of anything without asserting it, owing to its own limitation. The *zero-object* is incomprehensible: We can not think of that which is non-existent.

We are relating it to the wakeful state in this discussion, because whatever is considered to be real or unreal is considered as such only in the wakeful state. The objects of dream are real for the dreamer so long as the dream continues. Its unreality is known only when we reach the wakeful state. The sense organs also experience the dream objects during the dream, but yet they come to be unreal when judged in the wakeful state. The experience of nothingness comes only in the state of deep sleep. But that experience is not an experience of wakeful state, and we judge everything keeping ourselves in the wakeful state only. The experience of a total void can not be had in the wakeful state. for we assert the existence of nothingness in this state. In the deep sleep, no idea is formed, no assertion is made, and no object is experienced. That alone is the zeroness. But the wakeful state has its own limitation which, as stated can not think of anything without asserting it, for thinking of something is asserting it. All this goes to establish that the so-called zero of the wakeful state is not a zero, but a minus-one. This cognizance of zero itself but comes due to a positive existence acting on the incomprehensible zero. This so-called zero, therefore is a minus-one, for it is comprehended and conceptualized by the mind.

We need not deal with the minus-one to show it as a minus-one, for a minus-one and verification is not necessary to find it as such. But to deal with the plus-one in relating it to Mãyã and to show it as a minus-one is the most difficult task in this chapter. To fight out this plus- one, we need to have a special sword the Quantum Mechanics. So we may stop this analysis for sometime, and proceed to know what the Quantum Mechanics is. We shall not, however deal with the Quantum Physics in its entirety in this chapter, but shall pick up only that portion the Quantum Mechanics -which alone has a relevance to our discussion.

#### Quantum Mechanics

Before entering the Quantum world we need to highlight certain concepts, which are useful for our purpose. Quantum in its

ordinary meaning is to quantify something. It means 'how much' and in Physics it refers to the nature and behaviour of atomic and sub-atomic objects. The term indicates discreteness of something -some atomic or sub-atomic objects.

A particle is a discrete something with a tiny body as opposed to the continuousness of a wave. A quantum particle might have a mass and has also a definite volume, which the quantum wave does not have. A particle may remain stationary, and has a position—a location, but the wave must flow. It does not have a definite location, or a definite volume.

A schematic wave is defined by four parameters, namely, amptitude, wavelength; frequency and velocity. The amptitude of wave is its maximum height. The wavelength is the distance between the points in its maximum height. Velocity is the speed of its motion. But to define the frequency, it requires an explanation. A wave travelling at a velocity of v meters per minute will cover a distance of v meters per minute. By counting the wavelengths in this distance we will be able to find out its frequency. A wave must have all the parameters. In other words, anything that possesses all these parameters is a wave. But a particle does not possess any of them. The most important property of waves is their capacity for interference. Waves cancel out each other or may also enhance their total effect. This property is not found in particles. A beam of particles can easily be distinguished from a wave by means of this property of the wave. Diffraction is another property of the wave that distinguishes it from a particle. With this property in possession, waves are capable of bending around an obstacle. If the obstacle is small, the wave gets divided and goes around the obstacle from both the sides, and combining again, cancels itself to become one. But this property too is not possessed by a particle. A particle is a point-like discontinuous object, whereas the wave, continuous.

The concept of an *atom* as a building block was first propounded by the Indian philosopher, *Kanada* -one who gave (*a.a*) the concept of atom (*kana*), and subsequently by Democritus, a Greek philosopher. Behold what was written by him more than two thousand years ago—

"The universe was made up, in reality, of nothing but atoms and the void; the rest exists only in the mind. There are countless worlds, and each has a beginning and an end in time. And nothing was ever begotten of nothing, nor can anything be destroyed and reduced to nothing. And the atoms are innumerable in size and quantity, moving in all directions in a void colliding and forming vortices in which all complex substances arise: fire, water, air, and Earth. The fact is that these, in essence, are but combinations of certain atoms". \*\*This was the ruling Indian thought at that time, and how true it is even for today after two thousand years!!

This concept of atom reached its final shape and established itself again in the hands of Dalton when scientists were busy in the study of the spectral function of an absolutely black body. This spectrum analysis not only established the existence of atoms as fundamental building blocks of the objective world, but also proved that the atom has a structure.

A wide variety of conceptions, some of them quite unacceptable, regarding structure of an atom, came up early in 20th century. But the most acceptable among them was that of Johnson, which held that atom is a particle in a volume about 10-8 centimeters in diameter in which are floating about a number of electrons of negative charge with a proton as the core principle with a positive charge. When scientists were busy to discover an explanation for the stability of an atom inspite of inclusion of a positive and a negative charge in the same particle, and inspite of the notion of the electrons moving at an unbelievable speed around the proton, Nelis Bohr, a Danish scientist, and perhaps the undisputed master of the quantum world, came up with a conception which states that the structure of the atom resembles that of the planetary world. In the planetary world the Sun is the center around which are orbiting a number of planets with their own spin. The atom, according to Bohr, resembles the same with a proton having a positive charge at the center, and a number of orbiting electrons. How could Bohr explain the stability of the atom with this conception, is unrelated to our present discussion in this chapter, and, therefore, we need not describe it here.

<sup>\*</sup> Ouoted by Li Ponomarer in "The Quantum Dice".

<sup>\*\*</sup> The word "void" employed by him was not meant to denote a nothing-ness, for it was known to the intellectual world at that time that space is a positive existence. This word was used to connote what the space is ordinarily believed to be, and to differentiate it as a non-atomic formation.

Ever since the birth of Physics, the scientists were of the opinion that energy flows continuously with all parameters and properties of a wave. This opinion was confirmed when Thomas Young observed alternate bands of light and darkness on the spectral screen. And this phenomenon was ascribed to the 'interference' of the light 'wave'. But Max Plunk, a German scientist, thought for the first time that energy is given off in discrete quanta. He thought that energy is given off by the radiating body in whole packets -one, two, three, four... and not in any fraction of a whole. He combined both thermodynamics and electrodynamics and came forward with the ~ following equation—

E=hV

where E=Energy,

h=Plunk's Constant, which is equivalent to 6.6256  $\times$  10<sup>-27</sup>, And V= Frequency of radiation.

This equation established the relation between energy content of the quanta of radiation and its frequency. It states that with the increase of frequency of radiation increases the energy content of the quanta of radiation. Einstein, perhaps the greatest scientist of the 20th century, upheld this fact. He in his analysis on 'Photo-Electric-Effect', for which he own Nobel Prize in 1921, stated that Light (energy) not only is emitted in quanta, but also it travels in quanta. Quantum as known by Plunk has the energy in equation with hV. But to Einstein some of this energy goes into ejecting an electron from an atom in metal surface, and the rest to accelerating it to a velocity. The energy of such electrons to get ejected depends on the frequency, and, therefore, on the colour of the incident light, and not on its intensity or brightness. When light falls on a metal surface it is absorbed by the electrons bound to the surface of the metal. If energy in the incident light is greater than the force that holds the electron to the surface. that electron gets ejected. But Phillip Lenard, a German scientist, however did not observe that electricity is given off by the metal surface consequent upon incidence of light on it under all circumstances, because when he applied even intense red light to a metal surface, no ejection of an electron was found. He, however, found that a considerable number of electrons were emitted from a metal surface with application even of a faint violet light on it. This indicated that electrons were emitted only when the frequency of light was more than the threshold level. If absorption of light as a wave was made by the metal surface as it was thought of before the discovery of Plunk, electrons would have been ejected on application of intense red light—a light with less frequency. But Einstein explained that since light is emitted in discrete quanta by the radiating body, and asorbed also in discrete quanta inwhole discontinuous particles, light of high frequency, like violet rays, could bring out electrons from the metal surface. this proved that light is a particle and this particle was named afterwards as a photon.

But it was known to the Physicist without a trace of doubt that light being a form of energy flows continuous, and, therefore is a wave, with all the characteristics and properties attributed to a *Co* wave. But now it was found to the wonder of the scienceworld that light is a particle.

In a similar manner, an electron was considered as a particle with a minus charge by the atom-scientists, since it has along with a definite tiny mass, a definite tiny volume, which a wave does not possess. This supposition came from Neils Bohr, followed by Heisenberg. But in modem science no truth can be established without experimentation. Faraday's experiment showed the indivisibility of the elementary electric charge, which was supported by the experiments of Crock and Thomson. Only could a particle possess this property, and not a wave. Milkan's experiments, and finally the discovery of electrons in the photograph of the Willson's Cloud Chamber wiped all doubts and established the fact that electron is a particle.

But Louis Victor Pierre Raymond, Prince de Broglie (popularly known as de Broglie) supposed, while working on the same question as to how atoms are stayable, that not only light but also all bodies in nature must possess both wave and particle properties at the same time He worked on the postulates of Bohr, and finally obtained the electron wave-length. The electron-waves were stated in an equation, which becomes the basis for the 'wave-mechanics' that was developed some two years later by Schrodinger. That the electron was a wave was established in the experiment of Davission, Germer and Thomson who discovered that electron is capable of interference and diffraction.

Thus light, which was thither a supposed to be a wave was subsequently found in the Photo Electric Effect' to be a particle,

and electron) which was supposed by a group of scientists to be a particle was found to be wave. The famous equation of Einstein..  $E = MC^2$  which states that energy is matter and matter energy has been found to be true. But a wave and a particle are things of contradictory character. How can something stand opposed to itself? How can something be A and not A at the same time? Then what an electron is: A wave or a particle?

Bohr came forward with his Principle of Complementarity to answer this question. Why 'or', and not 'and'? —He asked himself. The way of classical thinking was still there in the minds of the scientists, which puts this "or" in the question: A wave or a particle? Bohr took off the 'or' and put an 'and' in its place, and stated that the quantum object, namely the electron, is a wave as well as a particle at the same time, although these two characteristics are opposed to each other, and that the electron concept is complete only when both the properties are taken together and attributed to the same.

This is known as the 'Principle of Complementarity'. Of course, we shall discuss the higher dimensions of the 'Principle of Complementarity' in due course of our general discussion on *Tridhārā*. But for the present it suffices for us to know that the quantum object, namely, the electron is a wave as well as a particle at the same time and its waveness and particleness are complementary to each other.

But 'to define a concept' is "to indicate a method of measuring the quantities to which this -concept relates", for the objective reality could be ascertained only if the position representing the particleness of the quantum object and the momentum representing the waveness of the same could -be simultaneously measured. Heizenberg after a thorough enquiry into the problem, found out that it -is impossible to measure both the position and the momentum of a quantum object simultaneously and accurately. With de Broglie's formula, h = h/mv = hp, we also find that the position and the -momentum of the quantum object can not be simultaneously measured, because the object does not .-show its waveness and also the particleness under one and the same observation.

We may consider a thought experiment to show how it is impossible to measure both the position and the momentum of a quantum object simultaneously. Suppose we try to find out the exact position of the electron and to do this we are taking the help of a microscope. The resolving power of the microscope is limited by the wavelength of the light used for the purpose. This resolving power of the microscope refers to the smallest distance between two points, which would — appear to be distinct. The smaller the distance, the greater is the resolving power of the microscope. How small this distance could be, depends naturally, on the wavelength of the light, and the shorter ".. the wavelength, the smaller will be the distance, and, therefore greater will be the resolving power. In other words, with shorter wavelength of light, used for measuring the position, the particle's position can be known with a greater precision. So, naturally we will prefer light with shorter wavelength for our purpose. If we want to use a hypothetical gamma ray microscopy that uses light with more than a thousand times shorter wavelengths, we are sure for a corresponding increase in the, precision of the electron's position. But we know from Plunk's relation between energy and frequency of the wave that the greater the frequency of the wave, the greater will also be the energy of the light particle (photon). So if we use gamma rays for measuring the position of the electron, the photons in the gamma ray shall be a thousand times more energetic than the ray of an ordinary red light which makes an object visible to our eyes (400 manometers). The very act of observing something requires that light be scattered by that 'something' before it enters into our eyes, to make that something visible. When gamma rays, used for our measurement, scatter on the electron whose position we are interested to measure, it gives the electron a hard kick and disturbs its momentum (considerably and significantly. And we can not use a part of the gamma photon to reduce this disturbance, as photons are discrete quanta!

Thus while increasing the precision of measurement of the position, we simultaneously decrease the precision of measurement of its momentum. Therefore when the precision of measurement of the position is 100%, the same in the measurement of momentum is zero. The same result will also follow if we want to measure momentum of the electron by using the low frequency light when momentum can be measured more precisely, and the precision of measurement of the position will decrease in inverse proportion to make it more uncertain. The observed object, therefore, is uncertain, and this is because we are not able to measure the

position of it as a particle, and the momentum of it as a wave, simultaneously with accurate precision Our inability to do so is not due to any deficiency in the apparatus used, but due to Mother Nature's conspiracy to keep the objective reality veiled from us. We shall never be able to know the reality at any time. A veiled 'something' is only projected before us.

This is true so far as the quantum-world is concerned. But can we say with precision that this finding also extends to the macro-world? Yes, we can. Some of the properties of the microobject remain unnoticed in respect of the macro-object Both a billiard ball and the terrestrial Earth are round in shape. But when the roundness of the ball could be known at once on just putting a glance at the ball, the roundness of the Earth took hundreds of years for mankind to know it as such. The reason here is the scale of its observer. The Earth, for instance, has also a wave-ness in it "If we are to describe it's motion using Schrodinger's equation, then, given that its mass is 5 x 10<sup>27</sup> grammes, and its orbital velocity 3 x 106 centimeters per second, we will have to ascribe this 'particle' a de Broglie wavelength of 4 x 10<sup>-61</sup> centimeters." This may be a very small number beyond our comprehension, but its smallness does not warrant that there is no waveness in this particle called Earth. This amply justifies our stand that any of the objects of the world is in possession of both waveness and particleness in it, and that the particleness and the waveness of the object can not be measured simultaneously with accurate precision, and that, therefore, the observed object is uncertain.

These findings receive a further confirmation in a higher dimension of the Principle of Complementarity of Neils Bohr, when we go for a double-slit experiment. But we need not go to the C details of the arrangements made for this experimentation, for they are not necessary for the present, context. For the purpose of this experiment, consider a stream of electrons hitting a wall with two small holes, A and B. There is a screen behind the wall capable of recording the impact of electrons when they hit it. A constant voltage applied in the space between the source of electron-discharge and the wall with two holes will ensure that electrons arrive at the holes with the same momentum. We have with us an electron-gun that is capable of firing one electron at a time or a flux of electrons at a time. Now when the electron-gun fires, a flux of electrons will rush towards the wall with same

(' momentum for each of them, and pass through the hole to hit the screen. We will find the spots -the hit points -in the screen by virtue of our sophisticated instruments. We will now notice a diffraction "ring in the screen, when we take all the hit points together. Now with the condition of one hole open, and the other closed, suppose that we will release the electrons one by one from our electron gun like rifle bullets to hit the screen behind the wall. With each electron released, we will find a hit spot on the screen (plate). This alone sufficiently proves that individual electrons are always point-like, and are never smeared out, and that they are, therefore, particles. We shall also notice that the spots on the plate are scattered entirely at random and none of them displays a diffraction pattern. But as we go on releasing electrons till the number is quite sufficient, we will notice that the hit points taken together as a whole display, to our utter surprise, the same diffraction pattern as noticed earlier. This is called a probability wave. At that time the probability wave in the opinion of many, was simply a probability, which describes the probability of e.lectrons hitting a screen behind the wall. But no, this thinking was erroneous as we are in a position to mpute the wave function  $\psi$  (x) and the probability distribution p (x) for a particle. The probability wave is a real wave like a water-wave in the sea. But notice that it is also a duality in the electron that comes up to our perception when viewed from a different angle. It is a particle as well as a wave in the vertical duality. But if you wish to observe an electron as a particle, and search for another partner, you have the probability wave to complement If you chose a single electron to observe it as a particle, the other partner, namely, the probability wave, is bound to collapse even if it is real. An individual electron-particle and the probability wave stand complementary to each other, and are subject to the Principle of Complementarity of Neils Bohr. But the probability concept may not be discussed here with details, for it is redundant to the context of our discussion. Suffices it to say that the probability wave represents, in its implication, the waveness of each individual electron.

In this experiment, it was observed that with one hole open each electron behaves like a particle when taken individually. But when both the holes are open, the electron displays a wave pattern, although it naturally went through one of them.

Now coming back to our experiment, we may now work on

it with both the holes open, but we shall close one of them after the electron passes through one of the holes. It is natural to think under such a circumstance that it is of no concern for the electron that has already passed through the hole, whether the one of the two holes is open or closed after it passes through, and that it will display a wave pattern. But we will be surprised to know that it displayed a particle pattern. The point of notice is when one hole was open, the electron passes through that 'one' hole, and it behaves as a particle. But when two holes are open it naturally passes through only 'one' of the holes, but behaves like a wave. How and why this insentient object gets consciously concerned to the other hole when it passes through only one hole, and not through the other hole simultaneously? Further when with both the holes open, it passes through only one of them, and after its passing, one of the holes is closed, how is it that it did not behave like a wave which it did earlier when both the holes were similarly open at the time of its passing through one of them? Is the so-called object, then, a conscious of the observation made on it, and of the fact of closure of the one of the two open holes subsequent to its journey through it? No, all this means that the observer himself imposes different characters to the so-called object under different situations in the observation, and that the object displays one or the other character according to the observer's choice. In other words, the observer, the -conscious subject -plants attributes on the so-called observed objects. But how? This question comes up only because we consider that the observer and the observed are two separate entities. But infact the said behaviour of the electron forces us to come to a conclusion that they are not two separate entities: They are one and the same -nay, the observer, the observed and the act of observation are really one and the same. They only appear to be many instead of one. They are complementary to each other to form a single whole. Behold what Indians are in know of some fifteen hundred years ago---

Jnāna, Jneya, tathā Jnāta Tritayam bhati Māyayā"

-meaning that the only one principle appears as many -the knowledge, the known, and the knower -owing the influence of Mãyã. The difference and the separateness observed in them are only apparent, and created by the mind under the spells of Mãyã

the principle of ignorance of reality. And this is the third aspect of the Principle of Complementarity of Bohr.

Bohr is stating this very fact in his principle of complementarity, of course, in its higher dimension. The Quantum Mechanics blossoms with all its beauty only when a coherence is established among the fragmentary concepts in the theory. It however, is erroneous to confine the Principle of Complementarity only to the wave particle duality of the single quantum objects, for by that one fails to appreciate the fact that the quantum object is a creation of the mind of the observer, and it displays one of these two contradictory characters only when it is observed -the facts that Bohr wanted in his Principle of Complementarity to convey. All the attributes with regard to the observed object are created by the observer. The object does not exhibit either the waveness or the particle-ness; rather it is the observer himself who is creating these attributes on the so-called object. The electrons do not exhibit the particle-ness of an individual electron, or a probability wave, rather it is the observer himself who is creating these attributes on the so-called attributeless something. These attributes are not there when the object remains unobserved; they are created by the observing'; mind and to add to Bohr's theory, the mind, as all Indian yogis know, can not create two separate attributes at the same time, because the mind can get fixed only to one 'something' at anyone point of time.

Now we shall come back to our earlier discussion on *Tridhārā* and ask ourselves: What is the implication of Bohr's findings on our discussion on *Tridhārā* and the plus-one stream? We have already stated that the findings on the quantum object can safely be extended also to the macro-world, when we gave the example of the Earth possessing the wave-ness as well. *This, inclusive even* of the plus-one stream, implies that the entire objective world is but a creation of mind; without *having a real object at the same time in the outer world* The moon exists only because it is being observed. It owes its existence to the observation of the observer. It has no existence whatsoever if no one observes it.

Now we find ourselves with sufficient exposure to claim that the so-called plus-ones are all C minus-ones only -things of creation of mind. The whole world is based on an ideation only. Not only are the objects of the Dream State illusory, but we are dreaming also in the wakeful state. We know the dream objects to be illusory only after the dream terminates. The world as presented to our wakeful state is also a dream, and can be known and experienced as such only on termination of the wakeful states at the termination of life.

When we conclude that not only a zero, but also a plus-one and so a minus-one belonging to the empirical world are all minus-ones, this minus-one must be an absolute minus-one, for there is none in existence except it to influence it in any way. It does not change with a change in anything else, for anything else beyond it does not exist to our perception. This illusion with the phenomenal world is absolute. Nothing in reality exists to our perception except the illusion. Mãyã -the power divine rules the whole Cosmos with an unbounded sway.

Our intention was to come to a conclusion that the multiple plus-one objects of the world - nay, the world itself -are but an illusion only, being only a creation of mind. And we have come to the desired conclusion, not through a customary path of intuition, but on the basis of the established scientific theories, which can, in a way, show the fact of this illusion in a laboratory.

#### Brahman—the Absolute Plus-One

A minus-one is but a function of a plus-one. Without the existence of a plus-one, no minus-one could be thought of. And if there is an absolute minus-one, there must be an absolute plus-one also in existence in some other sphere in order that the absolute minus-one could be formed. Existence of an absolute plus-one is, therefore, a logical necessity, which can not be brushed aside.

The existence of an absolute minus-one proves, by itself, the existence of an absolute plus-one, which encompasses all including the absolute minus-one, for the minus-one exists in the view ~ of world existence only -nay, it does not exist! In Vedanta Philosophy they name this absolute plus-one as 'Brahman' -the One Absolute Existence without a second. The inner flow of that oneness that binds together the observer, the observed, and the

<sup>\*</sup> We may recall our discussion in the previous chapter that duality both horizontal and vertical exist in anything that may appear before us as an object. And a duality formed by a zero and a plus-one is found only in a minus-one, and not either in a zero or in a plus-one. The universe stands -" composed with a duality, as this is an absolute minus-one and there is no duality in the absolute plus-one or in the absolute zero.

observation alone exists. The observing mind, the observed object and the act of observation -all are the projections of that oneness, and are only the products of Mãyã. They are illusions only.

#### A Search for the Zero

But where is the zero so that the absolute plus-one shall act upon it to create a minus-one? :- We may not have to go far to search for the zero, for it is very much present before us. We have already stated that there is no zero anywhere in this phenomenal world. Space, which we wrongly considered to be a void -a zero, is a positive existence -a primary formation of the phenomenal world. But if there is a minus-one, there must be zero, for without a zero the minus- one can not be created. The minus-one is the zero itself, if we look at it from a higher plane. The cognizance of the zero is the minus-one. The zero manifests as the minus-one. The zero appears to our perception asminus-one: The so-called void appears to be the hole in the wall. This wrong cognition of the individual mind is *Avidya* -a nescience. *Avidya* is a tree in the jungle of Mãyã: It is the Mãyã herself in her micro aspect.

## Mãyã Creates the Universe

It is this zero, which is the Mãyã itself. It is this zero in through and by which the phenomenal world is projected before us. The absolute plus-one acts upon the zero, and the zero produces a minus-one: The wall acts upon the void, and the void gives rise to hole: Brahman acts upon Mãyã, and the Mother Mãyã gives birth to this child -the phenomenal universe.

## Mãyã and her Relativity

Sir Albert Einstein, who needs no introduction as a scientistphilosopher to the world intelligentsia in general, and to the world of physics in particular, could succeed in establishing the fact that each event in the chain of creation of the phenomenal world has only a relative existence, and that it has no absolute existence whatsoever, for each of the phenomenal objects owes its existence to something else in the creation. Of course, he provided one single exception to this generalization, and that was velocity of propagation of light. In the Special Theory of Relativity, he could establish, among many thitherto unknown facts, that not only is any single object in the phenomenal world subject to this relative existence, but also even space and time, which were considered till then to have absolute existence by the classical scientists, are subject to the Principle of Relativity. And this he did through mathematical formulations only at the age of twenty-six in the year 1905.

But before proceeding to the Theory of Relativity, we would examine some of the observable parameters of an object, including a living one, so as to apply the Theory in detail to those parameters only. We, however, shall not proceed to explain the Theory of Relativity as such in detail, for our aim is not to explain it at length, rather we aim at relating this principle to Māyā and her illusion. We shall, therefore, touch the theory only at such sensitive Points as are necessary to achieve the end result. However, while doing so, we shall touch the important aspects of the theory to

present the overall idea contained in it.

So far as the parameters with which something exists to the perception of the observer are concerned, we find that something exists—

- with a mass
- with a volume
- with a state of rest or motion
- at a certain time
- at a certain specific area in the space
- if in motion, with a velocity.

So we shall discuss the applicability of the Principle of Relativity in these area only. The over-all description will be ours, and the thought in the theory will be that of Einstein's, for sometime hereafter till we reach our own.

#### Space is Relative

In order to establish the fact that the space is relative, we may take an example to illustrate the fact. Suppose that a young lady is travelling in a train in Trans-Indian railways, and was occupying a particular seat in the train, and that she does not ordinarily move out to other places inside the train. Further suppose that she writes a letter daily to her young husband who stays at London, and drops these letters into a letterbox hung inside the compartment. On 8.8 2k she writes a letter from her seat in the compartment, and she did the same on 9.8 2k. She wrote both the letters from the same seat, and there was no change of place for her so far as the act of writing of letters is concerned. But on 8.8 2k she wrote the letter when the train was at Calcutta in East India, and the second letter when it was at Madras in South India. These are places far apart from each other. For a person who observes it from outside the train, these two letters were written in places far apart, but for the young lady they were written from one and the same place. So while it was one and the same place for the young lady, it was places far apart for one who observes it from outside the train. In other words, these letters were written from one and the same spot in the space, and also from different spots in the same space, depending upon the position of the observer.

If something falls from a flying plane; it falls in a straight line in relation to the plane, but makes a curve, known as a parabola,

in relation to Earth. Then how does that something move in reality? Or what a space in reality it travels through? We have no answer, unless the position of the observer is specified. The space that remains in a straight line for the plane remains as a curve for the Earth. We may now ask a question as to why the space appeared to be one and the same spot for one observer, and at the same time, as two different spots for the other observer, and why the space, which was described as a straight line by something that falls from the plane to the Earth, was also described as a curve? The answer is also simple: It happened to be so, because the train and the plane were in ,.. motion. These different observers observed the phenomenon from two different frames one from a static frame and the other from a moving one. Now we can arrive at a conclusion, and that is—

- Space is relative,
- And it is relative to motion.

#### Time is Relative

Time was also found to be relative to motion by virtue of the following mathematical equation—

$$t^1 = t \sqrt{1 - v^2/c^2}$$

Where  $t^1$  stands for relative time, that is, time relating to someone in motion,

t stands for time elapsed on Earth,

v stands for velocity of that someone in motion,

and c for velocity of light propagation.

This equation states among other things that if an object moves at the speed of Light, time ceases for it. It also implies that as the speed of a certain object increases considerably to gradually reach the speed of light, at each increase of its speed, time decreases for it in an inverse proportion.

This fact can also be illustrated by an example, which has often been placed by different writers for its illustration. Suppose, one of the twin brothers, A, went out on a space voyage with the Einstein-space-craft, that moves at a speed of 9/10th of the speed of light, when both of them were 40 years old. But when he returned to Earth after travelling for, say, six years in space according to the watch and calendar with him, he finds that a further period of, say, 40 years has elapsed by then on the Earth,

and his brother, B, has grown to be an old man of 80 years in age. Why has there been this difference in time? Why did the period of six years for the moving one become a period of 40 years for his brother who remained on Earth? Here also the answer is simple: This happened to be so, because A was in motion. Time for A contracted as he took to a velocity of motion equal to 9/10th of that of light. Thus we find that—

- Time is relative
- It is also relative to motion

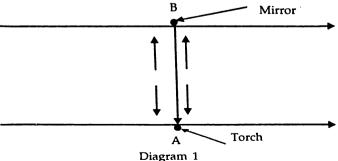
Time contracts proportionately as the velocity of motion increases and finally ceases, when the velocity of motion reaches that of light. If someone moves at a speed of 1,50,000 miles a second. his time moves slower than that for someone who moves at a speed, say, of 20,000 miles a second. Movement of time for someone in a static state is the highest. But this movement of time for someone else who moves at the speed of light is zero. Thus different objects in the universe have their own time-scales, and there is no universal time as such. Time is always personal to the object that exists with a specific velocity of motion. If two different persons, A and B are stationed in two different frames with two different velocity of motion and if both of them observe simultaneously an event taking place in the space, the event takes place in different times for them. It is wonderful that both of them are observing the event simultaneously, but yet the time of occurrence of the event is different for each of them. It appears to be a contradictory and an illogical statement, but nonetheless, it indicates a truth, and a closer look will reveal that there is nothing illogical in it. If A is stationed in a frame that moves with a speed, say, of 40,000 miles per second, a specific event occurring in the space is observed by him, say, at 10 a.m.. But if B is stationed in another frame that moves with a higher speed of 1,40,000 miles per second, the very event occurring in the Space shall be observed by him, say, at 9 a. m. according to his own time-scale. Now we can make a very wonderful statement that the event occurred 'simultaneously' for both of them, because they observed it simultaneously. It occurred 'earlier' for B with reference to the time of occurrence with A; and it also occurred 'later' for A with reference to the time of occurrence with B. Thus an event can occur simultaneously, earlier or later for different observers. There is no doubt that the specific event occurred simultaneously for both of them, and that, therefore, the event occurred at 'one point of time', but that 'one point of time' is not the same point of time, because that one point of time is placed differently in different personal time-scales belonging to A and B respectively.

To make it clear that the concepts of 'earlier' -'later' and 'simultaneous' are only relative, we may take another example, which, too, has been found in texts dealing with the Principle of Relativity. Suppose a spot occurs in the Sun at 10 a.m. on a certain day as per the personal time-scale of the Sun Light from the Sun reaches the Earth in eight minutes, and therefore, an astronomer observing the Sun from the Earth shall detect it at 10.08 a.m. But suppose that he puts on his specks at 10.05a.m. to observe the Sun. An observer from the Earth will find that putting on the specks by the astronomer is an event, occurred earlier by three minutes than the time of occurrence of the spot in the Sun. Thus the act of putting on specks -the event -occurred earlier to the event of occurring of the spot in the Sun. The observer in the Sun will observe that the spot occurred in the Sun at 10 a.m. and the event of putting on the specks by the astronomer occurred at 10.13 a.m. -an event occurring 13 minutes later than the time of occurrence of the spot in the Sun, for the time of putting on the specks (10.05a.m.) will get added to the time light took to reach the Sun from the Earth. Similarly the observer from the Earth will observe the occurrence of the event of putting on the specks by the astronomer at a time three minutes earlier than the time of occurrence of the spot in the Sun. Thus time, which is three minutes earlier to the occurrence of an event for one observer, is 13 minutes later for some other observer.

We shall now highlight the mechanism that relates itself to this contraction of time, for our understanding of the principle shall remain incomplete without it. We have stated earlier that time contracts for someone who moves with a very high velocity, and finally it ceases when it reaches the velocity of light propagation. To illustrate this mechanism, and to understand how it works, we shall now board the Einstein-train that moves with a speed of 2,40,000 kilometers a second along with an endless railway, and shall go from station-A to station-B covering a distance of 864,000,000 kilometers in one hour. But before boarding the train we shall set our watches by the station-clock at 9 a.m. and simultaneous to this setting, the train shall start

moving with the said velocity. Let us further suppose that, while on board we send a beam of light form a torch placed at the floor of our compartment to a mirror placed straight above the torch at its roof. The beam of light shall move in a straight vertical line to the mirror, and shall return to the torch in that same vertical straight line that makes a 90° angle with the floor. But this will take another shape for someone who observes it from outside the train. During the time the beam of light moves from the torch to the mirror, the mirror shall not be there where it previously was, when the beam started moving from the torch. It will shift from its previous position to -a new one as the beam of light reaches it, owing to the movement of the train. It will, however, make the same vertical straight line for the boarders inspite of its movement, but for the outside observer it shall make an angle of less than 90° inside the triangle that will be formed on the return back of the C beam. The beam on its return back to the torch, which again would shift by the same distance from its previous position due to the movement, shall again make the same vertical straight line for the boarders in the train, but again shall create another angle of less than 90° inside the triangle now formed, for the outside observer. Thus the movement of the beam from torch to the mirror and back shall be the one and the same vertical straight line for the boarders of the train, and it will create an isosceles triangle for one who observes it from outside the train. The beam, therefore, will travel a greater distance for one who observes it from outside than the distance it travelled for the boarders in the train.

To make things more clear, let us explain it with the help of a simple diagram (Diagram-I). For the boarders in the train the beam of light starts from the torch at 'A' and goes in a straight line to the mirror at 'B', and comes back to 'A' in the same straight line.



This vertical straight line, A-B, indicates the height of the train-compartment. But for someone observing it form outside the train, the movement of the beam of light shall be according to the following diagram,

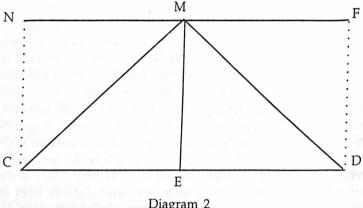


Diagram 2

The beam of light starting from point D (Diagram-2) shall not reach the mirror at F by moving in a straight line D-F as in case of the boarders, but due to the shifting of the mirror from point F to M owing to the movement of the train while the beam was moving from the torch to the mirror, the beam that starts its movement from D shall reach the mirror at M. And during its downward movement from point M, the torch which has already shifted from D to E by the time the beam reached the point M, would shift further to point C, and the beam shall meet the torch again at point C. Thus the beam shall form an isosceles triangle for someone observing it from outside the train.

Now suppose that one who observes it from outside the train found that the beam of light took ten seconds during its movement from D to C via M. The beam of light, therefore, travelled  $3,00,000 \times 10 = 30,00,000 \text{ Km}$ . This again will mean that M-D and M-C of the isosceles triangle are 15,00,000 Km each, and that C-D is equal to the distance the train moved during ten seconds. The distance between C and D is therefore,  $2,40,000 \times 10 =$ 24,00,000 Km. Thus DM = 15,00,000 Km, MC = 15,00,000 Km and C-D =24,00,000 Km. Now we can calculate the height of E-M. We

know that in an isosceles triangle—

$$\sqrt{(ME)^2 + (CE)^2 = MC^2}$$
  
So the height of the triangle—  
 $ME = \sqrt{(MC)^2 - (CE)^2}$   
=  $\sqrt{1500000^2 - 1200000^2} = 900000 \text{ Km}$ .

Thus for the boarders in the train the beam of light travelled  $900000 \times 2 = 1800000 \text{ Km}$ , because once it moved from the torch to the mirror and again from the mirror to the torch. But for someone observing it from outside the train, the beam travelled a distance of 3,000,000 Km during those ten seconds. The beam of light will take 1800000 / 300000 = 6 Seconds to reach back the torch for the boarders, while it took ten seconds for someone observing it from outside the train. Thus time .which is ten seconds for persons outside the train, is only six seconds for persons inside the train. This is why, on reaching the station-B we found the time to be 9.36 a.m. according to our own watch, while it was 10 a.m. at the station according to the station-clock. There was thus a dissolution of time by 24 minutes in an hour for the boarding passengers.

## The Concept of Space-Time

It was found that not only are both time and space relative to motion, but also they are one and the same. Any phenomenon that exists in the world exists not only in space but also in time. Any such existence refers simultaneously to both time and space, for it exists in time as well as in space. If a change occurs either in one or in the other, that phenomenon, which exists in space and time, exists no more. Time and space are not independent of each other, but they are an inseparable whole -the space-time. An event occurs always with reference to time and simultaneously the very same event occurs with reference to space. If either the time or the space is changed, there comes a change in the existence in of the event. If we are existent in India in the 20th century, we are non-existent in England and also in :'I the 25th century. Since an event occurs both in space and time, since something exists both in space and time, we find that they -the space and time -are inseparable. They are two faces of something, which we may call 'space and time'. There is no space and time,

but only a 'space-time'. Time, therefore, was taken as the fourth dimension of space.

#### Mass is Relative

Einstein stated in his Special Theory of Relativity that when an object moves with a very high speed, its mass increases proportionate to the increase in speed of the object for someone who observes the object from a different frame with a different and low velocity. This fact was expressed in the following mathematical equation-

$$m^1 = m / \sqrt{1 - v^2 / c^2}$$

Here m1 stands for relative mass -mass that appears to the observer from a different frame, m for its mass at rest, v for velocity of the motion of the object, and c for the velocity of motion of light. It states that when v = c, m is infinite. Thus the mass of the moving object becomes infinite for the observer stationed in a different frame, if the object moves with a velocity equal to that of light. (Of course, while making this statement we assume that the object is in a state of inertia.) So it was found that mass is a product of motion, and that it exists only relative to motion. If there is a change in the velocity, there also is a change in the mass. But all this happens for someone who observes the object, from a different frame.

Mass is a very important parameter of matter. If a constant force is applied to a matter for a specific period of time, it moves with a specific speed. If the same force is applied for same period of time to a wooden ball, and also to an iron ball of the same size under equal conditions, the wooden ball shall move faster than the iron ball. This shows that the mass of the iron ball is greater than that of the wooden ball.

If a constant force is applied to a matter in a state of inertia for, say, two minutes, it will move with a velocity of, say, 100Km per second. If the same force is applied for the same unit of time again, it will move with a velocity of 200 Km per second, for the material object is in a state of inertia, and there is no external interference on its motion according to our assumption. Thus the velocity of its motion will go on increasing proportionately as we increase the time units of force applied to it. But after a certain point, the velocity of its motion will increase, not. proportionately to the increase the time units, but m a diminIshIng rate. No doubt that there will be an increase the velocity with application of each additional time units of force, but this increase shall be in a diminishing rate. And finally, as the material object reacnes a velocity equal to that of light, no additional application of the units of force can increase its velocity of motion. In other words, its mass has become infinite as it moved with a speed equal to that of light. This is so, because the velocity of light propagation is absolute, which can not, therefore, be exceeded under any circumstance.

#### Length Contraction

We ordinarily believe that nothing else has any influence over a material object so far as its volume is concerned, and that any change in something else in the world will not be able to change the volume of that material object. We therefore, believe that the volume of a material object is absolute. But this too was found erroneous in the Special Theory of Relativity.

It has been stated that in the Theory of Relativity that a material object moving with a very high speed, infact, shrinks in the direction of its motion for someone who observes it from a different frame, and finally its volume becomes zero when it reaches the velocity of light. This is mathematically stated thus—

$$1^1 = 1\sqrt{1 - v^2/c^2}$$

Here  $1^{1}$  stands for the relative length of the object, I for its length in the state of rest, v for velocity of its motion, and c for velocity of light propagation. It states that when v = c,  $1^{1}$  is zero signifying that volume is also a function of motion, and, therefore, is relative to it. Of course, it is not an optical illusion as it may ordinarily be thought of because of the increasing vast distance lying between the observer and the object in view that moves away with a very high speed from the observer. But we should not forget that it is not the distance, rather it is the velocity of motion of the object that causes partial or total dissolution of its volume. If something material passes in the space with the speed of light propagation very near to someone observing it from the Earth, the observer shall not be able to observe it because of its zero volume, even though the distance between the observer and

the observed is very small.

Imagine that the Einstein-train rushes past a station with a platform of 24,00,000 Km long. It travels from one end of the platform to the other, according to our previous example, in ten seconds, as the train moves with a speed of 24,00,00 Km/sec. But this time of ten seconds that the train takes to move from one end of the platform to the other is the time for one who observes it from outside. But a passenger on board will observe that the train takes only six seconds, as we have shown it in our previous example. The passenger shall, therefore, be justified to think that the length of the platform is 240,000 x 6 = 1440000 Km, and not 240,0000 Km. Similarly someone observing it from outside the train will find that the length of the train is shorter, because it took as many as ten seconds to travel from one end of the platform to the other. But for the passenger the length of the platform is shorter than that observed from outside the train, but for that someone who is observing it from outside the train, the platform is shorter than that observed by the passenger, Which one is correct? The train is shorter or the platform is shorter? We may simply ignore the question, for it makes no sense, if asked without reference to the frame from which the observation is made

## Motion itself is Relative, Too

The state of motion and that of rest differ in degree only, and not in kind, for the state of rest is the state of zero-motion. In order to illustrate the relativity of motion, we shall take recourse, as usual, to an example. Let us imagine that we take someone 'A' into a train when he is quite asleep, and the railway lines are made such as they cause no jolts for the passengers, which we ordinarily experience ': while moving in a train due to technical reasons. Further imagine that the train will move along the railways in a straight line, and with a constant speed. Now when the train is in motion, A wakes up and observes everybody inside the train-compartment. The doors and the windows of the compartment are closed so that A is not able to observe anything outside. Now if we ask A as to whether the train is moving or not, his answer will be in negative, because he will experience no difference between the states of the bodies inside the compartment and of those in rest. So, although the train is

moving for someone, observing it from a different frame it is at rest for the passenger on board. It is in motion for one observer and is at rest for the other. This happens if the train moves in a straight line in one direction, and with a constant speed. But, however, it will not be so, if the train does not move in one direction and with a constant speed. In that case, if the speed is increased or decreased, or if the train takes a turn either to the left or to the right, the passengers on board shall experience a difference between the states of the bodies in the stationary train and that in the moving train. So have we found a state of absolute rest in something, which even though moving for someone stationed outside, is at rest for the passengers on board, if it moves only in one direction and with a constant speed? The answer is again in negative. To illustrate this, imagine that there is another railway line that runs parallel to the line along which our train moves. Further imagine that another train with a much higher and constant speed rushes past our train along the parallel lines, in the same direction. This other train will be observed by the passengers of our train to be in motion with a definite velocity (velocity of motion of that other train minus the velocity of motion of our train.) but the passengers of our train will find themselves in a state of rest, if the conditions are the same as those in our train. This means that there is not one state of absolute rest, but innumerable ..states of rest" that exist relative to one another.

What is the speed of a fly flying at the speed of three Km. an hour inside a train-compartment that moves with a speed of sixty miles an hour? This question makes no sense, unless the position of the observer and directions of movement is stated. For a person observing it from inside the train compartment, the velocity of movement of the fly is only three Km. an hour, but for a person observing from outside the train the same is 63 m/hr, if the fly moves in the same direction in which the train moves, but it is 57 m/hr if the fly moves in the opposite direction. Thus the velocity of movement of an object is different for different observers. The velocity of motion is relative to other velocities that may' exist with other frames, from which different observers observe it.

## Relativity and Light Propagation

But the concept of relativity is not applicable to the velocity of

light propagation. (By the expression, "velocity of light Propagation", we shall always mean its velocity in a vacuum). It has been found to be absolute, for no one else in the world is able to influence it. A change in anything else in the world shall not be able to bring about a change in velocity of motion of light. Nor can the motion of anything else in the world exceed it. Imagine that a train is moving with a velocity of 10,0000 Km./ sec, and by the side of the train someone flashes a light in the direction in which the train moves. What will be the velocity of motion of light for those moving in the train and for him who flashes the light from outside the train? 3,00,000 -1,00,000 = 2.00,000 Km./sec. for those observing it from inside the train, as we believe it to be with the motion of some other object? No, it will be the same 3,00,000 Km./sec. for both the observers -one who flashes the light from outside the train and one who observes it from inside the train. The Principle of Relativity that operates in all phenomena of the world fails to operate in case of light propagation. The velocity of light propagation does not get influenced by anything whatsoever in the phenomenal world. There is no canceling effect or no enhancing effect of any other motion on the velocity of light propagation nor can any other motion exceed it, even theoretically.

And with this we conclude our discussion on the Theory of Relativity as propounded by Einstein.

## How and Why?

Thus far we have stated some or the main features of the special Theory of Relativity on the basis of our requirement to the context of our discussion on relativity as an aspect of Mãyã. We have seen that all objects of the world exist relative to motion in the space-time continuum, and they have no absolute existence, except in case of velocity of light propagation. We have seen that space, time, mass, volume, motion, velocity -all exist relative to motion, and there is nothing absolute except the velocity of light propagation.

We have stated that the mass of a material object increases with the increase of the velocity of its motion, and shall be infinite if the material object moves with a velocity equal to that of light propagation. We clarified it in stating that every additional dose

of time-units of force applied to a material object in inertia shall increase its velocity, but, after a point, in a diminishing rate till the additional output is nil, even with the application of additional units of force, when the object reaches the speed of light. But all this is true to the observation of someone observing it from a different frame, and not for the object itself. And if it does not happen to the object itself, and if we assume that the object can generate force within the frame with which it moves, why can not its speed exceed the speed of light? Thus far we have stated many things with reference to the relative existence, and have explained 'how' things exist only relatively. But we have not explained 'why' they exist relatively or even 'why' velocity of light propagation alone has an absolute existence. These 'whys' have not been answered so far, and we shall make an attempt to do it now.

The velocity of light propagation is absolute, because it carries the infinity with it. But the concept of 'carrying the infinity' needs some explanation to understand it. What it really means? We shall offer this explanation in our subsequent discussion in this book.

#### What is Absolute?

We have seen so far that the velocity with which light moves is absolute, because it carries the infinity with it. This velocity is the infinite velocity, and the rate, 1,86,000m/hr., is only a dead number and a dead rate, because it does not indicate any existence. This concept we shall also discuss in course of this book.

The velocity of light propagation is infinite, and, as discussed, we have no zero in this phenomenal world. Nothing in a zero state exists here. And in between the zero and the infinity exists this objective world. Each of the objects of perception exists with, and owing to, a velocity of motion that stands between zero and the infinity. The objective world exists, only because it is in motion. The world and all the objects of the world with time, space, mass, volume... are a function of motion. If there is no motion, they shall at once get into dissolution, and if there is infinite motion, they shall also do the same. Because the velocity of motion with which light moves, is an infinite motion, it can not be exceeded by any other motion. Every thing else in the world owes its existence to velocity of motion, and shall'experience

a change, if a change is caused in the velocity with which they are moving. That velocity with which light moves, being the infinite velocity, is absolute for the objective world; and the world remains relative to this absolute, because the objective world goes with a velocity of motion that stands somewhere in between the zero motion and a motion with infinite velocity.

#### Is The Mind Absolute?

We have learnt from the conclusions of the Quantum Theory that the phenomenal world is a creation of mind, and that it does not exist in reality. The phenomenal world is a creation of the observing mind, and exists in and through a cognition of such a mind. The entire creation, including the velocity of light propagation, is, therefore, relative to mind. The objects and ideas exist, only because the mind exists. Does it not, therefore, imply that mind alone is absolute, and all others exist relative to it? Yes, it does.

## Mind and Velocity of Light Propagation

We have stated that the velocity of light propagation is absolute, and also that the mind is absolute. How can then two different things be absolute? We can not say that this velocity is not absolute, nor can we say that mind is not absolute. And we can not also say that two things are absolute at the same time. So let us examine each of them in relation to their absoluteness.

We find that the active mind can not be exceeded, by any thing external, for anything that attempts to exceed it, shall itself, being a product of mind, get into dissolution. Even the light-inmotion can not exceed it, for this velocity of motion shall cancel the mind, and the cancellation at once shall result in cessation of the velocity of light propagation itself. The velocity of light propagation shall have a cancelling effect on the velocity of active mind a fact we shall subsequently discuss in this book I -and the mind shall cease. And with this cessation, at once comes the cessation of that velocity, as it was a function of the mind as we know it from the Copenhagen Interpretation in Quantum Physics.

(Please refer page 49 also page 53 of this book for Cancelling Effect) Thus the mind can influence the velocity, it being a product of mind, and the velocity of light propagation can also influence the mind by and through its cancelling effect on it. *And* 

because each of them can be influenced in relation to their existence, we can not assign an absoluteness to either of them.

We found the velocity of light propagation as absolute in its own sphere, and the mind, in its own. These are two different entities. And two things at the same time can not be absolute, for absolute is one, to which everything else in the world is relative.

The Copenhagen Interpretation of the behaviour of quantum objects gave us to understand that the object exists only to our observation, and that it has no existence independent of it. A table, for instance, exists, only because it is being observed, and observed as such. A table, therefore, is a product of our observation. This means that a table is only an idea of the observer, without being simultaneously present outside the mind. As we have stated earlier in chapter 2, this table, therefore, is a minus-one.

A minus-one must have a plus-one, and also a zero, so that this a minus-one is created on a zero as a result of the action of the plus-one. If the table is a minus-one, it must have been created illusorily on a zero. The quantum scientists admit the zero when he/she says that the table is 'nothing', but a product of our observation. But we do not know any thing of the corresponding plus-one, due to whose presence this minus-one has been created upon the zero. The mind is comprehending this plus-one as a minus-one 'object' surely, this is a deficiency of the mind that perceives something to be something else. This is a negation existing in the mind -a minus-one. We know that a zero alone appears as a minus-one to our perception. So creation of mind -a minus- one -is caused on a zero due to a consciousness (plusone acting on it). Thus the mind is composed of a zero - resultant to the action of a consciousness -a plus-one. Thus the mind is a deficient one, containing a negation in it. it observes objects, when, in reality, there is no object present. It, therefore, is not capable of cognizing the truth. This non-cognizance of the truth proves its inefficiency, and the inefficiency is a negation in the consciousness of mind. This mind, composed of a consciousness deficient, creates the object when there is none, and also assigns a velocity of 1, 86000 m/s to a zero motion.

We can now go a step further to state that mind contains a deficiency in it, and also for this reason, it can not be absolute. We have seen, time and again in this book that the phenomenal world is a creation of mind. The relative existence of the objects

including their actions, are a function of mind, which imposes attributes like mass, volume, time, space, motion and velocity etc. upon an attributeless Existence. But if the mind takes a wrong cognition of one Existence as many, it is a deficiency of mind, for which it is not able to take a right cognition of that One Existence. The deficiency created upon a zero comes on the way of cognizing the truth. And mind being a deficient one can not be absolute.

#### Formation of Mind

What, then, is the absolute in and for this relative world? To answer this question, we need to know what mind is, and how it is composed. And to do this, we shall follow the footsteps of Sāmkhya System of Indian Philosophy, and shall describe it in our own way with our vedāntic colour on it. We find that there is a deficiency -a negation -in mind. Due to the presence of this negation in mind, it creates and cognizes different illusory attributes on one attributeless Existence. Upon this negation, upon this zero, acted the real plus-one, the Pure Consciousness, and a minus-one -the mind -has been created. This fact may now be explained by an example.

We observe that an electric bulb produces light, when it is charged with electricity. Light as an object is the result of a contact between the bulb and the electricity. Different types of light result due to a difference that might prevail upon the bulbs. A 100 w. bulb gives light brighter than that given by a 30w. bulb. A milky bulb provides us with a white light and a blue bulb, with a blue light. But for all types of bulb, the electricity is one. Light is produced in the bulb due to a contact of electricity, but the type of light is determined by the type of bulb used. Similarly there is a deficiency -a negation, and also a pure and unadulterated consciousness. When both of them come in contact, a third thing, namely, mind, is created. And in the process, the mind is created, and the pure consciousness gets reflected as the mental consciousness. The reflective consciousness is not a pure one. It comes out weak and faint due to its contact with a negation, which works as a veil on the pure consciousness. This consciousness comes out not only weak and faint but also with a changed colour, which it drives also from that negation. And the mind appears with and as a veiled consciousness.

Because it is the Consciousness, though weak and faint, it is able to perceive. Because it is of a changed colour, it perceives "something else" in place of the one attributeless Existence. And this "something else" is an illusion. Māyā works as a concealing power that conceals the reality, and also a superimposing power that superimposes something illusory on the Reality. Thus mind, which is a reflective consciousness is not absolute.

(We shall, however, show in course of our discussion, how the pure consciousness does not act upon the negation, and how its very presence stirs the negation to create a perceiving mind. But for the present, this much of discussion is supposed to suffice for our purpose.)

#### What, in Reality, is Absolute?

So, it is not the mind, which is absolute, for a deficient something can not be absolute. A deficiency is a negation, and something with a negation is not absolute in nature. If our knowledge extends to exclude this negation, or if we are conscious of it, what remains thereafter is a pure consciousness, for the negation is a zero and a zero indicates nothingness, and non-existence. The pure consciousness that exists as One Reality without a second shall now appear to be in absolute existence, for everything else is existing, because it exists. The minus-ones exist, because a plus-one is existing. The Plus-One does not, under any circumstance, get influenced by anything else, for anything else does not exist besides it. The zero and the minus-one are illusions only.

We call this pure consciousness as *Brahman*. It is erroneous to think that Brahman is conscious. No consciousness or anything else can co-exist with the *Brahman* for He is the One without a Second. He is the one, who is being perceived as many under the spells of Māyā. He is the consciousness itself.

But consciousness relates to something external. We are conscious only of something external. But there is none except Him, He shall be conscious of. There is nothing external to Him, as he is a lone existence. Therefore it is not proper to say that *Brahman* is the consciousness; rather He is the *lone "ciousness"*, excepting whom nothing exists. He alone is absolute, and none else; and the relative existence is an illusion only.

## 4

# Mãyã and the Point of Dissolution

When Einstein made his formulations and equations in the Theory of Relativity, he could imagine the influence of a  $C^2$  in each of them. His things happen, and are true, only if they are considered keeping the velocity of light propagation in view, and making it a necessary condition. This, therefore, implies that velocity of light propagation does make and unmake the world of relative existence. Keep away from this velocity, and then only your world exists: Then only M exists as M, and E as E.

## Activity, Matter, Events and Becoming

Matter exists only with activity. There is no matter in the phenomenal world that may be found existing without activity. Matter and its activities are inseparable. They are one and the same.

Einstein in his Special Theory of Relativity, succeeded in making a formulation that matter is also energy. He stated in his famous equation, E = MC², that mass and energy are but two aspects of the same object. We also found its. confirmation while observing the behaviour of an electron in Quantum Physics, which appeared before us with the wave nature of energy and also with the particle nature of matter when observed in different times under different conditions. Although the wave - nature, and also the particle-nature of the object in its macro-aspect do

not ordinarily come to our notice, it starts at the level of an electron, or some other sub-atomic object; and intrinsically remains as such in the matter. Similar is the case with energy. But our sole purpose in discussing all this is to show that each something in the physical world has two aspects: A wave that represents energy denoting activity and also a particle that represents the mass and/or volume denoting what it appears to our perception. So each something, which appears as such to our perception, is also an activity. The object is matter as well as activity at the same time. It appears as such under the threshold of a duality. Thus a tree before us is a standing activity, the mountain before us is a lump of activities, the bird flying before us is a flying activity, and so on. So if one of the dual aspects of the object ceases for some reason or other, the other also ceases: That something appearing to our perception ceases in its totality. The activity, which we are now speaking about is what the object itself, is, and not what it does. So we are required not to entertain any confusion in this regard.

A base particle is that which does not contain anything of a different nature in it, and itself is contained in all other objects of the same category. Although the actual base particle of matter has not been discovered yet, we may take the electron as the base particle, as at this point of division and further subdivision of matter, the waveness and also the particleness are fairly pronounced. In the field of energy we may take light as the representative one, and accept the photon to be its base particle for our purpose. If we observe activities that are going on with these particles, we find that photon—the light-particle—moves with a speed of 1,86,000 miles a second. The electron—the matterparticle—also moves with a similar speed inside the atom. Both the photon and the electron —the building blocks of the objective world -move with this unthinkable speed. By this alone can we assess the velocity of activities in matter and energy that constitute the physical world( Both matter and energy exist in and through this tremendous motion. They exist in and through these tremendous activities. These are the activities, which the objects do, and not what they are.

The objects of the world are not only busy in their activities within themselves, but they are also busy in their motion caused due to gravitation of some larger object. The moon moves around

the Earth due to gravitational force of the later, and Earth moves around the Sun due to its gravitational force, and so on. Thus each of the objects of the universe is busy with its motion; and there is no state of absolute rest for any of them,

This activity brings about changes in the object: Changes in position, changes in identity, Changes in states. This not only brings about the changes for the object within itself, but also transforms it to some other identity. Something gets transformed to something else. These activities also appear as the object of perception, for the object has no separate existence from its activity. This activity brings about changes, where each change is an event for the world. The seed gets transformed into a tree due to the activities within it and birth of a tree—an event—takes place. The Earth while orbiting the Sun, goes further to the Sun. and winter -an event -comes upon the Earth. Matter, energy and activity are, therefore, names of forms or states that the so-called object exists with. (If the activity of the object ceases, the object itself ceases to exist, for the objects and its activities are inseparable). The objects are activities and the activities bring about different states, different transformations with them, which are "events" of the world.

These activities bring about rapid changes in the object, and due to these changes, in each moment the so-called hitherto existing object becomes something new. A little child, for example, grows into an old man in course of time by the activities of the cells contained in it, and it becomes, day after day, something other than what he was a day before, or even a minute before or a second before. There is a rapid becoming to something, which the object was not previously. This becoming is a flow—a continuous flow that runs with the child, to transform it to a young man and subsequently to an old man, at different stages of life. We do not know when, at what exact point of time, the child became a young man, or the young man became old. A flow of change comes over the child, and after innumerable "becomings", it turns out to be an old man. When we observe any object of the world, this becoming alone comes to our notice. Uninterruptedly this becoming goes on till a transformation, which again is a becoming in itself, brings about something new that goes by some other form, some other name and some other identity. Thus becoming denotes a form, a name and an identity.

But we do not know what it is which is becoming something new, something different at each point of the flowing time. We do not know because we have seen it only in its becoming. We observe only rapid changes, but do not know what is changing, as we find it existing in the world with a previous state, a previous form and a previous name. Now we may look at a 'primary particle', which might create a doubt in our mind in respect of the validity of the statements. A primary particle is taken to be one, which has been created for the first time in the universe, when the universe was created with the Big Bang. What we believe to be a primary particle, is also an attributive form of some other form existing previous to it. But even if we assume that it had had no previous fonn, it is born with an attributive form as such, and therefore it is a becoming of something unknown. The primary particle is a born becoming, as becoming does not always mean to become something from something else, but also means a "coming" of something with a state or a form having a name and an identity. These states and forms are the features of a becoming. They are only attributive, and one attribute or the other appears before us with a corresponding attributive identity. Thus there are only" becomings" and no "Beings", because the Being is concealed forever from the very beginning by the continuous flow of becomings.

#### What is Time?

Now let us come to a discussion relating to time. At the out set, then, we may ask ourselves as to what time is. We may not have to wait long for an answer, if we are able to visualize that time is an index of changes that are taking place in the world. It is only a mental construct, and is used by our intellect to measure the changes, to measure the activities, and to measure the gaps between the events. The concept of time emerges in the mind only because of those activities that bring about changes, which by themselves are events of the universe. Time exists as a mental concept, only because these activities exist external to mind. It is not that the events are a product of time, rather time exists as a concept owing to the existence of these events. The events occur independent of time, but time runs dependent to changes or the events. Time is the internal counterpart of what is going on external to the observer. He indexes the events and measures the

gap between them by and through a mental construct called time. The sequence of happening of the events gives rise to the concepts like "earlier", "later" and "simultaneous", which are, in a way, same as the 'past', "future" and 'present'. Events, which are only an expression of activity, correspond to the concept of time. Time, therefore, is the mental concept that denotes activities. Time will cease to exist, if for some reason or other, the activities of the world cease. We live in the space -time continuum. Einstein is right when he says that the space has four dimensions: Length, breadth, and height—these three taken together correspond to space -and time is the fourth one. Those three dimensions taken together as a whole, which corresponds to space, is the time itself, for time is the conceptual existence of those three dimensions taken together.

## Cessation of Time: The Cancelling Effect

We have already discussed in this book, while dealing with the special Theory of Relativity, that as someone moves with a very high velocity, time contracts for him, and finally it ceases to flow for it, if and when it moves with a velocity of light propagation. This proposition comes from Einstein, and this was mathematically arrived at by him. So we can not question the validity of such a proposition. But no one answers the question as to why the flow of time shall cease for him who moves with the velocity of light propagation.

But with all the preceding discussion in this chapter, we are now equipped to answer the as yet un-answered question. But before answering this question, let us suppose that two frames are moving parallel in the same direction with the same speed of 1,000 miles an hour. What will be the relative speed of frame-A for the observers stationed inside frame-B? It will appear to the observer in the frame-B that the bodies in frame-A or even the frame itself are not moving at all, and that they are as stationary as the observer himself Why does one observing from frame-B finds the bodies in frame-A stationary even when they are moving at a speed of 1,000 miles an hour? It is because of the cancelling effect of motion of one over the other. One motion cancels the other to the extent of its own velocity, if the motion is in the same direction.

When we say that time ceases for someone who moves at

the speed of light, it means that the motion of activities in that someone ceases due to the canceling effect of the motion of the frame in which he is posited. The moving object moves along with its own activities. These activities, therefore, move in the same direction in which the frame moves. These are two different activities: One is that within the moving object, and the other, external to the moving one, is that with the moving frame and both of them move in the same direction. But even if we assume that the object moves by itself without a frame, there shall also be the same two different motional activities—one, within the object, and the other, with the object. So anyone of these activities has the potentiality to cancel the other to the extent of its own velocity. Matters are activities and activities are time. Time ceases means activities in the moving one ceases. And it ceases owing to the canceling effect of the activity of one over the other.

It will not be difficult for us to visualize that there are three different types of motion that are going on for one who moves with the speed of light. One is the motion of the frame in which he himself is posited. It is external to him. The other one is the motional activities going inside that someone who~ is stationed inside the moving frame. We have seen earlier that the rapidity with which electrons are moving inside the body, in a way resembles that of light, which, therefore, prevents us to question a motional activity in a material body. This second motion is internal to that someone who is stationed in that moving frame. The third motion is the motion of some other frame where someone else is stationed. Of course, there may be many such frames, but we take all of them together for the third one, because they are neither the frame in which our someone who moves at the speed of light and for whom the time is to cease, is posited, nor is it that someone itself. We shall now discard this third motion, for it is redundant at present to our purpose. We place this third motion here only to keep it away from our discussion, lest it may create confusion in our minds if we get it along with the other two.

The frame in which that someone is posited moves with a velocity equal to that of light propagation. The activity in that someone, who is posited in the moving frame, goes on almost with an equal velocity. Both the frame and that someone posited inside the frame, move along with the activities in that someone,

in the same direction. So the motion of the frame or the movingone cancels out the motion of the activities internal to that someone to the extent of its own velocity. Then these activities cease instantly in and for that someone who is stationed inside the moving frame or who himself moves with the speed of light propagation. And cessation of activities is cessation of time!! This itself means further that the activities are moving almost at the speed of light propagation, which, for this very fact, was cancelled out by another motion in the same direction with equal velocity. And therefore, time, being the index of the activities ceases with the cessation of activities. This happens to him whose activities cease due to canceling effect of motion. But even if we assume that the object itself moves without being posited in a frame, the consequential result will be the same, because it is the activity itself on one hand, and it does an activity by way of motion on the other.

Equipped with all this, we are now in a position to make out certain formulations in this regard. When we speak that the flow of time ceases for him who moves at the speed of light, this has the following implications —

- The velocity, with which the activities in an object run, is equal to or less than the velocity of light propagation.
- The velocity of motion resembling that of light propagation cancells out the velocity with which the activities in a material object are going on.
- Time, being an index of changes due to these activities going on in and as a material object, moves with a direct proportion to these changes, that is, time moves swifter if the changes -the preceding events and the succeeding events -are closer to each other.
- Time moves in an inverse proportion to the length of the gaps, if any, between the events, that is, longer the gap between the events, slower is the movement of time and vice versa.
- Time is zero when the gap between the events is infinite.

## The Point of Dissolution

All becomings stop with the cessation of time, for cessation of time itself denotes cessation of activities. All mental activities too, which create this objective world, cease with the cessation of time.

And at this point, the death knell of the objective universe sounds, and it disappears instantly. Cessation of mind at once leads to the cessation of universe. Cessation of time for some one moving with the velocity of light propagation, shall bring up a cessation of the universe, including that someone himself, for him. I warned you at the beginning of this chapter to keep away from this velocity. If you don't, your M will be E, nay—both of them will be zero.

With the cessation of the world of Mãyã, the Being, which remained concealed by the concealing power of Mãyã (the Ãvaranî Shaktî), emerges deconcealed. This hitherto Concealed Being is the Brahman Himself. And the becomings are the concealing products of Mãyã. So far the Brahman has been superimposed by these becomings under the spell of Māyā. Māyā is whirling around Brahman -the gloriously ever shinning Sun -like a large dark, ghostly cloud with a speed of one hundred and eighty-six thousand miles per second!! The activities in the moving one now gets cancelled by the motion of the frame in which that someone was posited. If and when one reaches that point in motion, one reaches he point of dissolution of the universe created by Maya. That is the point where the universe ceases, and ceases with all its becomings, with all its dualities, with all its multiplicity, shape, size and colour. When one increases the speed of the frame to reach that of the light propagation, the universe starts crumbling, and finally comes to a total collapse, and disappears like water in a mirage, when the velocity of light propagation is reached. When someone reaches the speed of light, his mental activities cease instantly leading to complete dissolution of the phenomenal universe. Mind has given birth to the universe, as we have found in the Copenhagen Interpretation in relation to the behaviour of quantum-object, and motion at the speed of light propagation brings about, by its canceling effect, cessation of all mental activities, leading to a dissolution of the universe. With the cessation of mind, there will be no plus-one objects, no minusone objects and no conception of a zero. All of them -all of these different kinds of falsehood, which have formed this absolutely minus- one universe, will disappear into a complete dissolution.

However, there is no chance, even theoretically, for a backward movement of time, and there is no chance for someone to move with a super-luminous speed, and thereby to go back to the past to witness the birth of one's own mother. As one reaches the speed of light all activities within that someone including those of the mind shall cease and at that point that someone himself as a becoming shall also cease to exist, along with the whole universe. He will not die a usual death, but as a becoming, shall disappear into a complete dissolution. The illusion shall disappear altogether.

## Why the Volume Contracts?

As we have stated, mind ceases with cessation of its activities due to a cancelling effect. That is why the volume of something that moves with the speed of light propagation becomes zero to the perception of someone observing it from another frame. Einstein, while stating that the volume of something that moves with the speed of light becomes zero for some other observer observing it from another frame, however, assigns a reason for it, and that is motion. But once we understand that the universe is a creation of the mind of the observer, and that the activities of the mind Cease proportionately to motion due to a cancelling effect, we have no difficulty in assigning the reason for such diminution of volume (length) of the moving one to the observation of someone else from another frame. As the speed increases to reach that of light propagation, the moving object gradually goes beyond the power of perception of the mind of the observer, and he finds, with a deficient perceptive power, that the object is loosing its volume to come to a zero volume at last. We have stated elsewhere in the book that loss of volume is not a visual illusion, but it is actually a mental one, which is caused as the mind loses its perceptive power due to the cancelling effect of motion over the activities of mind. Volume, which identifies itself with the moving object under the moving situation, ~ loses itself proportionately to the loss of mind.

This also implies that both the observer and the observed remain subject to that velocity with which light moves.

## Mass of the Moving One

Einstein stated that if something moves with the velocity of light propagation, its mass shall be infinite. Well, but there is no chance for the mass of someone who moves with the speed of light to be infinite for itself. The point of dissolution of the world of Mãyã is reached when it reaches the speed of light. And the mass is

a product of Mãyã!! Instead of becoming infinite it will altogether get into a total dissolution, like the illusion of a snake superimposed by the mind of the observer on a rope in a faint light. Einstein may be right when he states that the mass of something will be infinite for the observer stationed at a different frame, when it moves with the velocity of light propagation. This we shall try to discuss later with an in-depth vision. But as it stands now, the observer himself will not be able to observe the moving one due to the latter's total loss of volume.

#### Emergence of Brahman

The point of dissolution of the world of Mãyã is the very point of emergence of *Brahman* - the sole Being of the innumerable becomings -who so far remained under concealment of Mãyã. With this velocity within our reach, we cross all limitations, and at once reach the limitless infinity. With this velocity within in our reach, we cross all mutability, and reach the ever immutable. We cross all multiplicity and reach the One without the second. We go beyond all the incentients of Mãyã, and reach the lone sentient one -the consciousness itself. That is *Brahman* -the everactionless Existence. Now the moving one finds himself none other than Brahman. He does not "become" *Brahman*; rather he finds that he ever has been *Brahman* himself. Tat twam asi, Swetakető! \* (Though art that, Swétakétû!).

If and when that point is reached, and we look back, we are thrilled with an abacking amazemant that there exists no mass, no volume, no activity, no change, no formation, no transformation, no matter, no energy, space, and no time. Where then are the duality, the multiplicity, the relativity, and the complementarity? Where is the life and where is death? Where is past, where is present and where also is the future? Where is the so-called reality and where is dream? Where are the observer and the observed, and also the act of observation? Where is motion and where is the rest? Where am I and where are you?? Where even is the universe with all that it has in it ???

A blissful consciousness exists as the lone Reality without a second!!

<sup>\*</sup> The famous sentence of *Ûpanisad* that strikes right at the center of Vedantic-thought. In Chandogya Upanisad (in Sama Veda) sage Uddālaka, which explaining the highest wisdom to his son Swétakétû uttered these words more than two thousand years ago.

## Mãyã and her Amazing City

We know this world as it appears to our perception, and the truth at this level is what is perceived of We know no other truth beyond what the perceiving mind testifies to us. That is the truth for us, which the perceiving mind perceives at its own level, and accordingly the world stands before us. It is the observers' world.

There is nothing in this world that exists with a no-motion, and there is also nothing that has a motion with a velocity equal to or beyond that of the light propagation, except that propagation itself Everything exists with, and because of, a motion with a velocity that stands somewhere in between a no-motion and a velocity equal to that of light propagation. And with a 'inbetween' velocity of motion everything" exists with a corresponding mass and a corresponding volume, to the perception of the observer. If, for some reason or the other, velocity of motion of an object increases considerably, its mass and volume will increase and decrease respectively, to the perception of someone, stationed, of course, in a different frame; and thus the object under observation shall be different from what it was prior to the increase of the velocity of its motion. Now with this background knowledge, and corresponding to a truth that corresponds to the perceiving mind, we shall make an attempt to examine and answer the following question-

## Does the Mass Really Become Infinite?

It is true that when the volume of a specific object becomes greater

than what it was previously, its mass simultaneously becomes smaller, and vice-versa. If something is compressed to a smaller size, its mass in each point in the existing volume shall be found to be greater than what it was previously. But are the mass and volume of the object two separate existences? No, because the very same object possesses these two different aspects. They are like someone's back and front, which someone exists with. These aspects are different in nature, but not separate from each other. The object stands composed as a singularity within the threshold of this duality where each one of the duality bears a character contradictory to that of the other. Both these two aspects of the object emerge simultaneously, and along with the object, and also die out with its death, because they, taken together, are the object itself These aspects are the objectness of the object. There exists no mass nor volume without the existence of the object itself The object exists, and we with our own wisdom, attribute these aspects on to it. The so-called difference between them is formed by a difference in the modes of our observation. That, which is the mass to the experience of our touch, verily is the volume to the experience of our sight. Each of them is created by the observing mind, and one appears different from the other to our perception, owing to a difference in the media of perception. If someone asks about the colour of the mass of a body, we can not answer, because mass is an attribute imposed by us through a sense-organ that is not able to assign a colour, for colour can only be assigned by another sense-organ. It is not that the object exists with a mass, and also with a volume, which are different from each other, but that mass and volume, taken together are the object itself, and that the difference emerges owing to a difference in the media of perception.

That aspect of the object comes before us, which we want the object to exhibit. When we want to perceive it as a mass, we touch it, and when we want to perceive it as a volume, we use our sight. Thus the same object is exhibited either as a mass or a volume or both mass and volume according to our choice. One might pose a question at this point as to how it is that we have never touched an electron, but yet it has a positive mass, as we know it. Well, one might have the knowledge of the electron possessing a mass, but one has no experience of mass with the electron, and moreover this knowledge is based on a previous experience gained through touch, which tells us that a mass exists with something material.

There is no knowledge that is not based on an experience gained through the sense organs, either at present or in the past.

Since these aspects are non-separable, and are the very object itself, when one of them is non-existent, the other must also be non-existent, if both of them were existing at some point of time previously.

So while in motion or in rest, if one of them is non-existent, the other is also non-existent. Non-existence found in anyone of them even after adoption of that medium of perception to which it is sensitive ensures non-existence of the other, and also the non-existence of the object itself, due to their non-separation from each other, and also from the object.

But yet Einstein states that the volume of the moving object becomes zero and its mass infinite, if its motion reaches a velocity equal to that of light propagation to some one else's observation.\* How can one aspect of something, and therefore that something itself, exist, when the other aspect is totally non-existent? It can not. It is true that one can increase if the other is decreasing. But so far as their very existence is concerned, one can not exist when the other is totally non-existent. As the distance between the Sun and the horizon decreases, a shadow in the Earth increases; but when the distance between them is zero -when the Sun goes down the horizon with its entirety -the shadow also becomes zero.

'Touching the zero' and 'becoming the zero' are two different things. A so-called plus-one touches the zero much before it is swallowed by the zero. There are many stages in between zero and plus-one. When an object starts moving, it touches the zero, as the start of movement denotes start of losing the volume. At this point zero opens its mouth to swallow the volume. But when the motion is on with a specific velocity, which is heading to reach that of the light propagation, the situation becomes different and the object loses its volume: the so called plus-one is gradually getting into the zero. But yet the object exists with a smaller volume, and with the loss of volume, the mass increases proportionately. When the velocity of motion increases further, the situation differs further, and the object shrinks further in its volume. Simultaneous to this, there is a corresponding rise in the mass of the leftover volume. As the velocity increases, the volume that goes into the zero also increases, and simultaneously decreases the leftover volume of the object. Again, when the leftover volume becomes smaller and still smaller, the mass in that leftover volume gradually and simultaneously becomes greater and still greater. But when the volume in its entirety is swallowed by the zero or, in other words, when there is a total loss of volume, the object, which exhibited its existence also through volume, disappears into the zero. At this point, not only does the whole volume disappear into the zero, but also takes the object itself along with it into dissolution. Then whose is and where is the mass that becomes infinite? Before reaching the infinity, suddenly it collapses, and helplessly gets, along with the volume, into the large open mouth of zero -the Death incarnate.

Depending upon the existing circumstance, the ratio formed by and between the mass and the volume may vary. But since both of them, taken together, constitute the object, the same can not exist with a total absence of anyone of them. If the volume in its entirety goes into the zero, the object as such is bound to go into the same zero.

At this point of our discussion, someone might ask us the following question -

"You posed a question at page. 41 under the subtitle 'how and why' as to why can not the speed of an object according whose own observation its mass shows no sign of any increase, exceed the speed of light propagation, even if it could generate force within itself and you did not stay for an answer. Why can it not exceed the speed of light propagation under such a condition? And, secondly, what about the statement you made at page 37 while explaining infiniteness of mass to the cause of its immobility even after application of additional doses of units of force?"

So far as the first question is concerned, we did not answer it then and there, because our discussion at that point was too immature. But now we shall give an answer that will cover both the questions. But before a satisfactory answer can be given our understanding relating to zero and infinity must touch the horizon. What is zero and what also is the infinity? As we all know a zero denotes nothingness -a non-existence. But for infinity, we

<sup>\*</sup> That observation also corresponds to a truth, and not to an illusion, on Einstein gave us to understand. And because he calls it a truth for the observer observing it from a different frame, we are analysing its truthfulness, even for that observer.

understand as the limitlessness. We understand further that this infinity can be reached by proceeding only along with the increasing numbers, or the objects denoted by such numbers in an ascending order. But we need to understand both infinity and the zero as they really are.

When we say one, two, three, four...we mean some positive existence with reference to that number. It quantifies the existence. The cows are limited to two when we speak of two cows. Again when we speak of two cows, it can not be three cows, for we have employed there a limiting adjunct -two. Thus a positive number is a limiting adjunct of the positive existence and it restricts us to reach the limitlessness. A number is a limit: Quantification is a denotative of a limit. This number is a restriction on our journey to infinity.

A number is a restriction that does not allow the existence to become infinite, and stands on the way to infinity. When the number increases, we wrongly think that our path till that increased number has gone restriction-free. But infact all these numbers till that point are now put inside the claws of that limit. As the numbers grows, more restrictive they become.

Each number denotes a limited something, or, in other words, this something is under a limit. A growth in the number is therefore, a growth of limitedness. It is the limitedness that is growing with a growth in number. Thus each number is restricting us to catch the limitlessness. Any growth in the number, therefore, is a growth of the restriction that is being imposed on us in our search for the limitlessness. So how do we except ourselves to reach the limitlessness with a growing limitedness and a growing restriction?

When we speak of forty cows, the claws of the limitation extend to include as many as forty cows -forty existences -within it. It gets stronger in a still wider area. When we say that there are hundred cows, the limitation is still stronger, and still wider. The limitation grows stronger and still stronger as the number grows. We have already noticed that the limitation is a prohibitive factor that restricts us to reach the infinity—the limitlessness. When this limitation gets stronger and still stronger with the increase in number, our chance to reach the infinity grows weaker and still weaker. Humanity has been searching for this infinity for thousands of years, but it has not been able to catch it. The searching humanity proceeds with these increasing numbers and

the restriction grows stronger than ever along with the increasing numbers.

But once we understand that the numbers, and therefore, the existences they indicate, are only restrictions on our way to reach the infinity, the matter becomes simple. Once we understand that these numbers are only limitations, and that the limitation grows stronger with every increase in number, we may hope to find a way out that might take us to infinity. We wish to reach a limitlessness, and how wonderful it is that we have chosen a path where restrictions and limitations grow stronger and still stronger as we wish to proceed by. The humanity has chosen a wrong path to reach the infinity by and through growing number.

We are to get rid of these restrictions; we are to get rid of these limitations, if we wish to reach the infinity -a limitlessness. Even if there is a single limitation, we can not reach the limitless infinity. So we change our path, and start moving with the numbers that come in a descending order. Notice that the limitations are growing weaker and still weaker as we move from 100 to 99, 99 to 98, 98 to 97 and so on. At last we reach the zero -the limitlessness, for there is no number, no positive existence to restrict us to catch the infinity now. We have reached the infinity at last!!

Go into the zero, and you will find no number that might indicate a positive existence, no limitation that might limit the limitlessness. It is that infinity where there are no limits of numbers. It is the very same zero where there is no existence, which the numbers are indicative of. Zero and infinity are the one and the same, for they indicate a point beyond limited existence and beyond numbers. These are only two different names of the same non-existence. The invisible dead numbers alone are lying covered in the dark inside of the graveyard of limitless zero \*!! All limits all restrictions vanish in it. It is the limitless infinity.

Of course, we can reach the infinity on moving also with the growing numbers. But the growing numbers at that point or beyond shall remain as dead numbers, for they can not indicate any existence. Numbers, as we have stated are indicative of certain existences. But they shall fail to indicate something in

<sup>\*</sup> These in reality are all minus numbers, and are indicative of minus-one existence, which the world is made up of. And, therefore, they find their graveyard inside a zero.

existence when they reach the infinity—when the existence goes beyond its maximum growth, the indicative existence shall remain in zero at infinity, for infinity is nothing but the zero itself. When the Sun touches the horizon, our shadow in the Earth reaches its maximum. But when the Sun goes beyond the horizon or in other words, when the distance between the horizon and the other end of circumference of the Sun is zero, the shadow not only becomes zero but it also comes into and becomes the infinity itself: Whole Earth (Of course, that which does not face the Sun) is covered under the infinity of darkness, and no more a shadow exists. No more a shadow -it is all a total darkness, a total absence of the shadow. If our shadow, when the Sun touches the horizon, is ten thousand miles long, that number ten thousand is indicative, and therefore, a living number, but if we move to ten thousand one only for the sake of number, it will be a dead number, for that does not indicate an existence. It is the same killer-zero that emerges after ten thousand: The Sun has gone down in its entirety!

The maximum number, therefore is not the infinity. Infinity is that where all numbers die out. Beyond that maximum existence -beyond that maximum number, which still remained indicative -lies the infinity where all existence comes into zero. Here we may make a reference to our discussion in the chapter "Māyā And The Point Of Dissolution", in this context.

The mass of Einstein shall become maximum, and not infinite when someone moves with the speed closest to that of light, and this will happen at a point where the volume is still in existence -where the volume is in its minimum, but not zero, —whatever smallness it may exist with. But when the volume becomes the zero by proceeding with the descending numbers, the mass shall also become the zero by proceeding with the ascending numbers. That point which we call the point of maximum existence, is the last limit, beyond which there is no existence, for existence ceases beyond that point -beyond one hundred eighty five point...n thousand miles per second!! Thereafter the infinity stands before us as that killer-zero itself!

And what else do you expect to find this minus-one universe to be when you know that it exists only on a zero!!

I hope that my readers have already got the answer for which so much has been stated to know the infinity and also the zero. The object that moves along with light shall itself disappear into dissolution before it exceeds the speed of light. True that when volume is zero, the mass is infinite, but this infinity means the same zero. We are in agreement with the findings of Einstein in this regard, but we do not concede to what he meant by infinity or what the world understands when it is said that mass becomes infinite under those conditions. We still remain firm in our opinion regarding infiniteness of mass.

And in between the zero and the infinity situated is the city of Mãyã -the empirical world -with all her numbers and with all her existences. But when zero and infinity are one and the same thing, do you think that in zero are contained all these positive existences? Even when we know that zero contains nothing positive? Can you not then, hear the inaudible cries of those ghost existences that are floating in the dark-inside of zero as minusones!!

#### State of Absolute Rest is Found

Einstein stated through his mathematical equations that flow of time ceases for someone who moves with a velocity equal to that of light propagation. Does anything, then, move with the velocity of light propagation in this universe of ours? Yes, it is the light itself. But what do we mean when we state that time ceases for one who moves with the velocity of light propagation? Of course, we mean that light takes no time to reach a certain spot in the space, whatever may its distance be. We mean that the light is instantaneous in motion to its own observation, and it does not take any time to move from one spot in the space to another, irrespective of the distance between them.

When we speak of the velocity of motion, we speak of a ratio existing between a unit of time and the distance covered. In other words, it is a ratio formed by and between change of position of something with reference to some other object on one hand and a unit of time it takes for such a change, on the other. But when light does not take anytime in its motion, this ratio indicating the velocity is not formed. Velocity is a child born of a father and also of a mother: Time and change of position. If either the father or the mother -anyone of them -is not available for the other, there can be no child that may go by the name 'velocity'. If time is not required for light propagation, there is no motion for light itself. The state of no-motion is the state of rest, and it denotes a

motionless existence. True, light moves at a speed of 186000 miles per second, but that is only for us -the observer. But in reality light does not travel for itself: it is only a motionless existence. To our own observation, both the ingredients of velocity, change of position and time -are present with light. This motion covers 186000 miles on one hand and "per second" on the other. But to the observation of someone, who moves along with light, one ingredient—time—is non-existent. Then is it correct to think that the other ingredient -motion -is present with light? No, because when one ingredient is non-existent, the other is also bound to be non-existent, for both of them together form the velocity. And when there is no velocity there can be no motion. This leads us to conclude that light has no motion to its own observation.

This we have stated in previous chapter, entitled "Maya And The Point Of Dissolution", although in different words. Cessation of time leads to cessation of all activities, including motion and its velocity. And we are now reconfirming it here.

But someone might argue that light moves, but it has a specialty that it takes no time for moving from one spot in the space to another. Well, we are speaking of that specialty, and that is, it asserts its presence at a spot where it was not present previously without moving to that spot.

If you move along with light like a photon, or if you are a photon yourself, you move, and at the same time you do not move -you are also in a state of absolute rest. Your state in absolute motion is a state of absolute rest. There is none in the universe to influence your state of rest in any manner. Your state is a state of absolute rest. Your motion exists only for the observer, and not for yourself

Of course, we find light with a velocity of motion of 186000 miles per second. Therefore we find its motion from one spot to another, and also in a specific time. Once we find a motion in light, we also find all ancillaries and related events happening along with its motion, that are found in motion relating to other bodies. Once we find a motion in light, naturally we also find a velocity of such a motion, for velocity and motion are one and the same existence: one can not exist without the other. Similarly natural it is for us to find the manner of its motion—to find it moving as a wave or as a particle. We are bound to find also a spot from which it moves and also a spot to which it moves along with a

trajectory. While moving it naturally must produce certain effects of its motion as the cause -the Photo-Electric Effect~ to name one out of many such effects. But all this stands together with the motion of light as an aspect of it. They do not, however, falsify its other espect; namely, light at rest.

Human mind, with all its limitations, can not perceive anything without putting a time element into it. So light moves, and moves in a time for us. But in reality it does not move. Once we accept that there is no time for one, who moves with the speed of light, we are bound to accept that light does not move, for movement occurs only with reference to time. Light asserts its existence in a certain spot without moving to it. It is a motionless existence. And if you can put yourself in that motionless existence like a photon, you are in a state of absolute rest.

Humanity has gone mad in searching for a state of absolute rest. It has searched for it everywhere except perhaps in absolute motion, and could not find it. It therefore, finally declared that there is no state of absolute rest, for everything in the universe including the universe itself, is in motion. But we have found it in absolute motion, and declare that a state with an absolute velocity of motion, with which light moves, as a state of absolute rest.

We have stated earlier that one finds the total dissolution of the universe created by Mãyã, if one succeeds in moving with a velocity equal to that of light propagation. Now we state that one also finds the same dissolution, if one succeeds in putting oneself in a state of rest similar to that with light. The state of absolute motion is also the state of absolute rest. The observer finds an absolute motion in what is really an absolute rest. Infinity is zero itself: Infinite motion is zero-motion itself! And a zero-motion is not only zero of motion. but also a zero of that which was in motion, for it existed relative to a motion only!!

And in between the states of absolute motion and absolute rest, situated is the city of Māyā with all its amazing beauty, and if you wish to go beyond, you shall have to ride a royal chariot made up of photons. And if, listening all that we said, some passer-by asks us "Well, you said that the state of absolute motion itself is the state of absolute rest; then how can something get itself situated in between one and the same thing?" Then you may give him a meaningful smile, and say, "Didn't I tell you that this is the city of Māyā, and the city of Māyā doesn't exist!!"

# Mãyã and the Nature of her Creation

The nature of creation shall go undescribed, and some of the yet unanswered questions shall also remain as they are, if we do not incorporate this chapter, and place it before the concluding chapter of this book. So we start with the absolute and proceed to the relative world thereafter.

### Why is the Velocity of Light Propagation Absolute?

Velocity of light-in-motion is considered to be absolute owing to two reasons: No one in the universe can influence in any manner the speed with which light moves, and, secondly, no one can exceed the speed of light propagation. There is also a third reason for its becoming absolute, and that is, everything else in the universe owes its existence to this velocity, for the concept 'relative' means a dependent existence. This third reason itself speaks that anything else that has a relative existence does not exist either with a zero-motion or with that absolute velocity of motion. We have stated earlier that anyone that reaches the speed of light in its motion shall get into dissolution, and we have also stated adequate reasons for it. It can not be reached, because it carries the killer-zero with it, and anyone that tries to reach it, shall also get into that zero at once on reaching this velocity. It can not be

reached, because it carries the infinity with it. Anyone that reaches it shall at once be swallowed by infinity: It will just vanish from the universe into a total nihility. Whosoever reaches that velocity, reaches the zero; and the minus-world is left behind. Once the zero is reached, the minus-one is bound to vanish, for this minus-one was created by the mind upon a zero. Once the void is reached, the hole in the wall gets into a nihility. We would like to project this zero not only before the relativist physicist to show what one's own state shall be, who moves with a velocity of 186,000 miles per second; and what also the state of the universe shall be before him, but also before the quantum physicist to answer his question: "What really is an object, when it is not observed?"

But why can any one else not influence the velocity of light propagation in the universe? They can not, because they are all limited numbers: Because they are all existences with limits. They can not influence the limitless infinity. Imagine the power of the velocity that even stops the flow of time. Imagine that power, whose very presence even in the state of absolute rest stops the time in the universe. Imagine the motion with absolute rest that gets the entire universe into a total dissolution. Imagine the power of this infinity that makes anything a zero that tries to move along with it. That 186,000 m/sec is the infinity, for at this figure no existence exists. Any figure at 186,000 m/sec, or beyond, is a dead figure, and that indicates no existence. But someone might point out that light itself could exist at this figure, and that we therefore, are not justified in stating that nothing can exist at this speed. Well when we admit Einstein's view that a photon, for itself, does not take time to move from one spot in the space to another, we derive a conclusion out of that that it is also in a state of absolute rest (or a zero-motion). We thereby conclude that motion is zero for the photon while it is perceived by the observer to be in motion. It is not only a zero of motion, but also a zero of the photon itself, for the state is a zero-state, and, moreover, a photon (or any other object) is a function of a velocity of motion only. Again, when we consider it from the point of view of the observer who observes it from a different frame, we know that photon is mass-less, and 'appears' only with a volume like an illusory girl appearing in the juggler's show. We also know from Einstein that when something moves with the absolute

velocity, its volume is zero for the observer. Thus there is no mass for the photon, and now, while in motion, it will have no volume. Then do you think that photon-in-motion exists even for the observer?

That something is a state of absolute rest and at the same time it is an absolute motion. It is not a motion and yet any thing that remains with it can assert its presence in a spot in the space without moving to it (our words are failing to describe a velocity without reference to the object that moves with that velocity, for it also indicates a state of absolute rest. When we say "anything that remains" we also know that it does not remain. The readers are requested to use their feelings and imagination along with their intellect to catch it). That something is a zero velocity, and at the same time an infinite velocity. As a zero velocity, it exists and at the same time as an infinity it exists. It does not exist, because it is a zero. It does not exist, because it is the infinity. The difference that prevails upon this (velocity) and the velocity with which the other objects of the world move is that it exists as a zero, and the other velocities, as minus-ones. The zero is nonexistent, because it is a zero; and the minus-one is also nonexistent, because it is a minus-one—a child of the zero. This is the reason why the velocity of light-in-motion is absolute.

That is a zero for one who moves with that velocity. One will not only find oneself as a zero when one reaches that velocity, but one will also find light as a zero itself. That someone shall find this velocity as the infinity where one shall lose one's own identity, all of one's own attributes, all of one's own existence as a universal phenomenon. When one reaches the speed of light, one reaches the zero, one finds himself swallowed by the infinity; killed by the zero, and finds the light along with the universe as the zero -a total dissolution. The zero appears to our observation as having an indicative number, as having an absolute but definite velocity. It appears to us not as a zero, but something positive! !

And that is the reason why the velocity of light propagation is absolute. Velocity of light propagation is absolute, because it carries the zero with it, nay -it is the zero itself. And no other object carries a zero along with it in motion or in rest. Let there be no confusion between light and its velocity of motion: We are attributing the zero and infinity to the velocity, and not to the

light. When we speak of this zero, we are speaking it also from the point of view of empirical world, where, as we have stated earlier, no zero exists. But even in the empirical world, a zero exists along with that infinite velocity.

This alone differentiates it from all other existences of the universe, and makes it absolute. All those so-called empirical positive numbers that are indicative of all different velocities of all other existences lie in between the zero and infinite velocity of motion, but yet velocity of light propagation exists without reference to a number that indicates a certain speed. 186,000 m/sec is not a speed indicated by a number; for no existence exists corresponding to this so-called number. It is the infinity itself.

We may also find different velocities of motion with other objects of the world, but light has no different velocities. It has only one velocity of motion in the void, and that is 186,000m/ sec. We can find a car moving with different velocities at different times, but we can not find different velocities in light propagation. This is because this velocity is the infinity itself. And therefore it has no increase or decrease in it: It does not correspond to any number—it is beyond all living numbers. It is the zero that does not increase with me minus-one created in it, nor does it decrease with a decrease in these minus-ones that appear as the phenomenal existences in the universe. These phenomenal existences are all minus-ones, but this absolute-motion (or this absolute rest) is the only zero, which we may also find as infinity itself. This velocity of light is found to be absolute, because it contains the zero, and also the infinity in it. This zero is found to be absolute, because the zero gives birth to all minus-ones. The mother-zero is absolute for all minus-one children. The void in the wall is absolute for the hole. The hole can not influence the void, which gives birth to it. The void exists with or without the hole. Nor can the hole exceed the void in any of its dimensions!!

The velocity of motion that goes with the light can not be cancelled in part by any other velocity that may be found in the motion of any other object. An object moving with a speed of, say, 1,00,000 m/sec can not cancel the speed of light propagation to the extent of 1,00,000 m/sec. This moving object shall also find that light exceeds its (the object's) own speed again by 186,000 m/sec. This scientific finding is enough proof that goes in a chain in support of our statement that—

- The velocity with which the light moves is the infinite velocity, and, therefore, any other velocity that corresponds to a living number can not influence it,
- The absolute motion is also the absolute rest -the infinity is also the zero,
- The object that may move with the velocity of light propagation shall itself become a zero and shall exist without any material or psychic existence,
- The objects of the world, including the world itself, are only minus-ones so that they are getting dissolved inside the zero.

Now someone might ask us, if we are equating this velocity with Mãyã. Yes, that is exactly what we are going to do. Velocity of motion of light is the Mãyã Herself But we shall talk of Mãyã with a detailed note in the next chapter, for our purpose here is only to ascribe reasons for absoluteness of the velocity with which light moves.

But lastly, someone might ask us the following question-"You stated that everything else in the universe being a minus-one can not influence the velocity of light propagation, because it is the zero itself; and any object that might come in contract with this colossus speed shall at once become the zero. But how is it that the light is not able to make the closing limits of the universe a zero and to proceed beyond?"

Here is a confusion that larks in someone's mind. We stated that if you move with the speed of light you will become a zero; but we have never stated that light can pierce through anything that comes on its way. Ordinarily light can not pass even through a totally non-transparent thin paper. Moreover, we are speaking of absoluteness of velocity of light propagation with reference only to the universe, and not beyond.

Of the beyond we shall speak, and that remains for the next chapter.

#### Shall There be A Heat-Death in the Universe?

So far this question has not been answered with an unhesitating tone. Some physicists are of the opinion that the universe shall come to a pitiable end due to a scarcity of usable energy, while others opine that much before this scarcity comes, the universe shall come to an end with the Big- Crunch. The theologists rejoice to know that the universe shall finally come to an end, which

proves for them that it has been created by God, while others, who believe in Steady-State of the universe, are of the opinion that nothing like this shall ever happen to end with the universe, and that something will happen to save the universe from the crisis. But before answering the captioned question, we need to state, in nutshell, what a 'heat-death' is, and how it might come to be.

#### The Second Law of Thermodynamics

Flow of energy is always un-directional, and it flows spontaneously from higher-intensity zone to lower intensity zone. By such a flow, no energy-expenditure is caused. But it is impossible for energy to flow from a low intensity zone to a high intensity zone. This means that there is no flow of energy between or among equal intensity zones.

When energy is converted to work, all the energy spent is not converted to work, rather some of it is wasted in the process, which can not again be used for work. This wasted energy is measured in 'entropy' and stands opposed as unusable energy to available and workable energy. In course of time, activities continue to increase, and as a result, the available and usable energy in a closed universe, decreases with an increase in 'entropy'. Although the total usable energy in the universe is vast, yet it is not infinite. So, there will be a time in the distant future when usable energy will be zero and the entropy, maximum.

Energy that is wasted in the process does not vanish rather it converts itself into heat and spreads over to remain in equal intensity everywhere. So when the entropy is maximum, the available workable energy is zero, and the heat distribution is equal everywhere.

With this isothermic conditions prevailing through out, there shall be no flow of heat from one zone to the other, and the universe shall go without activities and shall remain nonfunctional. The galaxies, stars and planets in the macro-world, and also the electrons, protons etc. in the micro-world, shall not be able to maintain their position, for there shall be no usable energy to go with. This will result in a pitiable 'heat-death' of the universe.

But we are yet immature to answer the question as to whether or not there shall be a 'heat- death' of the universe; and we shall remain so, until we know the nature of this creation.

#### THE NATURE OF CREATION:

#### The Relative World

The purpose of the book was to show the phenomenal universe as an illusion in the form of 'a minus-one, and that has been reached time and again in its different chapters. A minus-one could only be created upon a zero. In the figurative illustration presented below, (Illustration -1) we

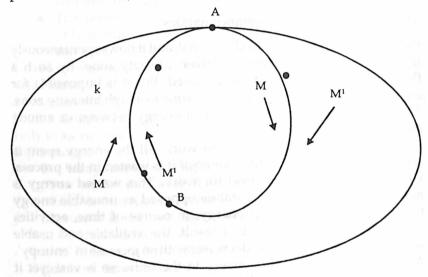


Illustration -1

- Red circle indicates the zero, where the universe has been created.
- Dirk circle indicates the course the universe takes in course of time.
- Each point in the dirk circle indicates a state of the universe in the corresponding time.
  - A is a point that belongs to both the Red circle and the dirk circle, which indicates both creation and dissolution.
  - M, the point nearest to A, is the point of creation. It's clockwise motion in the circle indicates gradual increase of those, which were at their minima at M.
  - M¹ is the point, same as M, that indicates, in it's clock-wise motion in the red circle gradual decrease of those, which were at their maximum.

mortions and to scored order

- B is the point opposite to A. It indicates a position of the creation, which in it's nature, is opposite to that in A.
- K is the last point of existence of the universe.

have shown the area identified by a red circle representing the zero in which the minus-one universe has been created by the mind of the observer. The zero itself is appearing as the phenomenal universe. So we have taken point A in the zero as the point indicating the emergence of universe with all that is contained in it. The figurative illustration presents a picture that stands to our perception from an empirical point of view.

The dark line creating a circle inside the zero is made up of points that indicate different states of the universe in course of time, which emerges from point A. Each point in the dark line represents a state of the universe that corresponds to an indicative number or a rate. Of course, they are all minus-numbers, and beyond them is the infinity at A, which again is the zero itself. The zero appears as the infinity. If the view is taken from one direction, it is the zero, which point A indicates, but if it is taken from the opposite direction, the very point appears to be infinity, that lies beyond all numbers.

When we start from point A and move forward clock-wise in the dark line, the very next point M, which is closest to point A comes on our way, and denotes creation, for prior to that there is no creation, but only a zero. Zero is the source of creation. Creation emerges only in the very next point M or MI: Zero is not minus-one, for minus-one emerges from the zero.

At point M, whose distance from A we may suppose to be 10,000th of a second, the universe was hottest with more than one trillion degree Kelvin, and was in a thermal equilibrium. It was a state of super-radiation—an unthinkable radiation of zero!! For there must not have been any matter that can radiate this super-heat -this super-nova No matter can stay as such in this super-nova. And simultaneous to this radiation, a non-mass-non-energy space was created. Thus the duality in the creation starts from this very beginning, and gets expressed, in the threshold of which the universe as a singular entity stood composed. A duality in composition of each entity of the universe is a must, because a minus-one is created primarily with a zero on one hand, and the action of the plus-one on the zero on the other.

Duality exists from the very inception of the minus-one, and the universe at any stage before its dissolution can not go without it.

But it was not that nothing material was existing at point M. There is no appearance of zero in the minus-one. So long as minus-one exists, the zero can not be found. So long the dream continues, there is no reality of the wakeful state. Point M was, of course, an energy,,.dominated point, where energy was at its maximum and matter, at its minimum. But yet matter existed with whatever smallness it might exist. It was also a point of maximum activity, but yet the activity was not infinite: It had a corresponding and an indicating number or a rate. The universe burst forth with a maximum velocity, yet it was not infinite: It had also an indicative number. There is no zero or infinity in anything that exists with a relative existence: Both the zero and the infinity were left behind at point A.

Thus certain existences started with their maximum, and the others, with their minimum. So the point closest to A is a point of both M and Ml -one representing maxima of certain things and minima of others, and the other, reversibly, maxima of those others and minima of those certain things. And this maxima and minima are neither infinity nor zero respectively.

Mass of the universe, which was at its maximum with the formation of the material world, shall also be at its minimum at point B due to the fact that the universe is expanding. Volume of the universe too, which was at its minimum at M shall be at its maximum at that very point B. Motion, which was at its maximum at point M with the outburst of the universe, shall be at its minimum at point B. B is the point that stands opposite to point M -the point of creation.

B is the point maxima-turned-minima, and also minima-turned-maxima. It is situated at the end of the waning phase and at the beginning of the waxing phase of the universe. We have already stated that although both M (or Ml), and reversibly, B are points indicating maxima of certain existences, as well as minima of others, they are not points of zero or infinity, for zero and infinity can only be found at point A. None with a relative existence in the universe does carry the zero or infinity with it, except that absolute velocity -the velocity with which light moves. So none in the universe can get into a zero without being placed

in that velocity. So things not carrying the zero with them can not be found to be zero at any point in the dark-line except in A.

What we mean by 'carrying the zero' needs clarification. It is not that there is no absence of something present earlier in time and space. But what we mean is that that something, in itself, can not be reduced to zero. When a pen is taken out of my pocket, there is zero-pen in my pocket. But we do not intend to indicate this zeroness of the pen in the pocket while expressing ourselves through 'carrying the zero'. What we mean by that is that the pen itself can not be reduced to zero. Anything that exists, exists: There can not be a total nihility of it until the universe reaches the point A. Of course, it can transform itself to some other shape. to some other name; but it does not come down to a zero. That is why we do not find a zero-motion, a zero-heat, a zero volume or a zero...in any relative existence. All of these zeros can only be found at point A, or at the velocity, which carries the zero with it -the velocity of light propagation. That velocity is point A itself. That velocity is without a motion. That is infinity: That is zero: That is Mãyã Herself.

When we are speaking that none in the universe is carrying the zero with it, except the velocity of light propagation, someone might ask us about zero-mass of certain sub-atomic existences; and our answer is that its mass never existed before. A zero can not be found with that which was a non-zero earlier at any point of time. There are only modifications, transformation and preservation, but no creation or no dissolution.

Therefore, all the existences of the universe including the universe itself shall, by the same natural process, move ahead from B to A, and this shall be the waxing phase of the universe. It will not, however, get into dissolution at point B, because zero does not exist there. Things are not carrying the zero with them. The course of the universe in time shall not be linear, because zero does not exist at point B, or some other point, except in A. Its course of universe along with its different states is bound to be circular, because zero itself is the infinity; and while moving towards infinity, it shall have to come back again to that zero.

Therefore, those, which are at their minima, shall again bloom forth to their maxima in the second phase. And maxima with those other existences shall slowly fade away to reach their minima at K, which is closest point of A. And with a step further, it will get dissolved into the infinity. The killer-zero shall appear again as the infinity.

Any of the objects of the universe, which appears to be an entity by itself, and separate them from others, can not, at any point between M and K, get alone into dissolution -can not get into a zero. The universe exists as a whole and shall get into dissolution as a whole. This fact can be well confirmed by the EPR of Quantum Physics. Although EPR was primarily a thought-experiment of Einstein, made to defend himself from the conclusions of Quantum Mechanics, it put him into an inescapable trap from which he could never free himself.

The Steady-State universe is a universe that exists between M and K. There is no possibility of its coming down to zero anywhere between these points. There was a birth of the universe at A and it shall get into dissolution at the very same point after completing its journey along the dark-line from A to A. The theory of Steady-State universe thus holds good only to a limited extent.

I believe, now my esteemed readers must have got their answer to the question as to whether or not the universe shall suffer a 'heat-death' before the Big-Crunch occurs. There shall be no 'heat-death' and a minimum of usable energy, just sufficient for the universe to proceed with, shall remain. Reversing to create a waxing phase shall reverse the course of every thing, and the universe, after a "grand transformation of the existences, shall proceed safe, although marginally.

## 7 Mãyã and her Lord

While explaining in the last chapter the reasons for the velocity with which the light moves to be absolute for this relative world, we have not only stated why it is so, but also identified that velocity as Mãyã Herself, and pointed a finger towards it to say, "This is Mãyã!" This velocity reigns over the mind as the zero -as that negation about which we have stated while differentiating mind form pure consciousness—which remained with the pure consciousness to form a mind that creates the objective world. This velocity with which the light moves, and which, in reality, is nothing but a zero, has, as the absolute existence of the world, also created the objective world; and the relative world remains relative to it for its own existence. The mind of Quantum Physics is a zero, appearing as infinity, which creates the world. The velocity with which light moves of the Theory of Relativity is also that very same zero, which creates the world. The absolute of the Theory of Relativity, is, therefore, the very same absolute of Quantum Physics. This absolute is zero, appearing as the infinity in the relative world of Einstein, and as the 'mind' of Bohr. That this velocity -with whatever it might remain—is the creator of this universe, is a conclusion we derive not only from the premises of Quantum Physics, but also form those of the Theory of Relativity. The Theory of Relativity, in its finer implications, is stretched to the same conclusion that the universe is an illusion as that of the Quantum Mechanics, which Einstein himself did not accept till his death, for it was not known that this velocity is the infinity as well as the zero. This velocity is infinite, and, therefore, it could create the finite world, as we find it from a point of view form the Theory of Relativity. This velocity is zero, and, therefore, being present in and as the mind, could create this minus-one world, as we find it while taking a view form the Quantum Mechanics. It is a zero not only of the velocity but also of anything found in the world. It is the infinity not only with regard to velocity of motion but also with regard to anything found in the world. The zero does not exist, and, therefore, the minus-one world also does not exist.

The zero creates the objective and relative world of Einstein. The very same zero creates the subjective world of Bohr. The zero appears as the absolute motion to make all others relative to it. The zero appears as the absolute mind to make the objects manifest to one's perception. The mind is a zero, and, therefore, does not exist. The absolute motion with its velocity is also a zero, and, therefore, does not exist. And both the objects and subjects that exist for us, in reality, do not exist. The zero is absolute for the minus-one world!

This zero is the Mãyã Herself -the Power Divine. It stands in between the minus-one and the plus-one, and bridges the gap between them. The plus-one creates the minus-one in, through and by the zero. It is the field in which the minus-one is created; it is the instrument through which the minus-one is created and it is the power of plus-one by which the minus-one is created. Brahman creates the phenomenal world in, through and by Mãyã alone. Mãyã acts as the instrument for creation, as the power of Brahman that creates and as the field where the creation is made.

We may recall here all the discussions made in the chapter Māyā and Her *Tridhārā* and; we may also recall the example of a hole we gave to explain the relation that exists between the minus-one and the zero. That which we call a hole—a minus-one -is the void -the zero itself. The surrounding wall—the plus-one -creates a hole upon the zero taking it for the field. This hole could be created only because the void exists there: The minus-one could be created only because the zero exists there. The void is the instrument for the creation of the hole. Again, the hole could be created by the void -the power of the surrounding wall. Māyā, therefore is the power of *Brahman* that creates the phenomenal world taking it as an instrument as well as a field.

The Quantum scientist finds the phenomenal world as a minus-one, for it exists only through a mental perception. The objective world was found to be a creation of mind, for it exists only while under observation. It is not known to the quantum scientists as to what the object in reality is, and the humanity finds it as inconceivable. But if we move from minus-one -the objective world -towards the plus-one -the Brahman, what do we find when the city of minus-one is passed through? Observe the arithmetical sequence of numbers, -1, 0, +1, and you will notice that zero comes immediately after minus-one. There is no number except these three, because +2,+3,+4 ... are only the growths of +1, and -2,-3, -4...are the growths of minus-one. If you have to come to the plus- one from the minus-one, you shall have to pass through a zero. It is necessary for the zero to remain in between plus-one and the minus-one, because a minus-one could be created by the plus-one, on, by and through a zero only. Hence comes the area of zero—the area of Mãyã Herself, when the area of minus-one is passed through, when the area of the objective world is passed through. When the products of Mãyã cease to exist, as with the findings of the Quantum scientists, the area of Mãyã comes before us. Māyā appears by Herself as the zero. She does not allow the Quantum scientists to observe the Reality, for at the time of observation the object of observation appears as a minus-one, which one knows to be illusory. One is not allowed to know the Reality during the period of non- observation, too. But if the Quantum scientist is permitted to obse ve the Reality by some means or the other, when the object is not under observation, he will find a zero -a Sunyatã -in place of the minus-one. This will at first mean to him that the objective world is a ghost, and that nothing exists beyond it.

The Copenhagen Interpretation makes it a requirement for the wave function to collapse on our observation. But in opposition to such a collapse, the Many-world Interpretation of Everett, which does not accept the wave function to collapse, owing to the fact that this function is considered to be real, rather than a mere probability, gave us to understand that the probable worlds. are infinite in number, and only one world out of them crystallizes to be real, and the rest vanish when an observation is made. But we may ask a question: What is real in this wave function? Is not this reality in wave function an illusion like all other realities

of world? Yes, it is. So where are our so-called many, many worlds? It is only the zero,

which is making fools of us with the rise of our intellect in such fields where zero reigns supreme—where Mãyã reigns supreme.

If we go deeper than the initial findings of the quantum scientists—the annihilation of the object of observation, we find that a zero is a zero only, and, therefore, it can not create a minusone by itself. Mãyã can not create a phenomenal world by Herself; the instrument can not create the product by itself; the field can not by itself have the creation. An absolute plus-one is necessary; a *Brahman* is necessary, and a consciousness is necessary to create a minus-one, to create a *Jagat*—a phenomenal world, and to create a perceiving mind.

If one succeeds to leave the relative world behind on one's journey to reach the *Brahman*—the Ultimate Realty, one shall have to face a greater absolute unreality—the zero. This absolute unreality is the Mãyã Herself that has a still greater power to obstruct your journey to reach the *Brahman*. We shall have to stand face-to-face before still stronger an obstruction on our way to find the reality. It is a thick, dark veil that keeps the reality under its concealment. And on this concealing veil are appearing the various projections, which we call the phenomenal object.

We are therefore, required to understand that the object under observation can not base on a nothingness. The nihilists, however, could reach this area -the area of zero -on their journey to reach the Reality; but alas! They could not break through this barrier of zero for a further journey, and are roaming directionless in the wonderland of Mãyã to declare that the Ultimate Reality is a *Sunyãta* - a nothingness. But this zero was necessary, a negation in the reflective consciousness was necessary, a canvass was necessary, and a Mãyã was necessary to create a minus-one, to create a perceiving mind, to create a portrait of creation, and to create a phenomenal world, without which the plus-one can not function, the *Brahman* can not function.

If you observe the area of Mãyã -the area of zero -you will find nothing but a *Sunyatã* -a complete nothingness, the point from which you observe it is a point in the objective world. But if you watch the zero from an opposite point that exists with the absolute plus-one -the absolute *Brahman* -you will behold with

wonders that it is the infinity itself, it is the *Brahman* Himself for an infinity, at this level equating itself with the zero, does not exist. Now the scene is quite different.

We are required to be careful at this point to distinguish between the infinity we have stated about so far, and the Infinity we are now stating about. That infinity was an infinity in a different plane: The plane was that of minus-one. Therefore the zero, where all existence gets into dissolution, was the infinity in that plane. But this infinity, which we are, now stating about, is one in the plane of zero where zero vanishes being non-existent with the simultaneous rise of its infinity—the Brahman. That infinity was an infinity, which stands beyond minus-one, but this infinity is one that stands beyond the zero -the infinity of the lone and the absolute plus-one. When one reaches the zero on the way in one's journey to reach the plus-one -the Brahman, all the minusones exist no more. If one goes further and reaches the plus one or the Brahman, the Mãyã also exists no more. All of them -the objects and the Maya -are found to be the Brahman Himself. He is the one without a second. When He is reached, Maya goes home along with her children!!

Remain situated in a place of Brahman and observe Mava, which you so far considered as an entity separate from Brahman, and find her as the Brahman Himself in the changed scenario. Examine the zero to find the real infinity in its place. Examine the zero and you will find it as the absolute and the long plusone. If you examine Mãyãa from the said point, the absolute will be visible to you in Her place. She can not be a separate entity by herself, because zero is the other name of non-existence. It merges into the absolute plus-one, and stays there as the plusone itself. Because Mãyã is a zero, Brahman -the absolute plusone -does not increase or decrease with addition to or subtraction from it. We may add any number of zeros to a plus-one, the result will be the same plus- one without any change in it. Mãyã influences everyone except the Brahman, for if she does, she loses Herself, and becomes the same Brahman Herself. Brahman remains unaffected by Mãyã, for He is the Lord of Mãyã. Mãyã is a necessity for creation, as Brahman by Himself can not create, for creation comes only with the observing mind, which by itself is nothing but a zero. (One should not get confused between the mind and the Consciousness. The difference prevailing upon them has already been dealt with in a previous chapter of this book.) It is not that *Brahman* can not, as we stated here, but that he does not. And we shall come to this point very soon.

Mãyã exists, and exists for the purpose of creation only. It exists only from the point of view of creation. It does not exist when such a purpose is absent. Or, in other words, if it is observed from the point of view of Brahman. And if you can look at it from both the directions -from the point of view of the worldexistence and also from the point of view of Brahman simultaneously, you will find that it exists, and does not exist as well. And if you know it as a zero, you know that it exists only to be found as a non-existence. Mãyã exists and at the same time She does not exist. It exists if our vision starts from the objective world, and does not, if our vision starts from Brahman. For the creation it exists and for the creator it does not. One should understand that Māyā is not merely a Sûnyatā. but a Sûnyatā "in between". It therefore derives its potency to be the field for the player to playa game. And with the play, the otherwise nonplayer appears through illusion - through zero -to be playing a game of creation.

You can not question when -at what time -Mãyã came into existence, for time itself is a creation of Mãyã. Mãyã, which is the velocity with which light travels, does not take time in movement, as time has a relative existence only. Your question is redundant, and it awaits no answer. The child can not stand witness to the formation of the mother, she was having before its birth. And for this reason *Mãyã is beginningless*.

The creation is the result of the activeness of Brahman. He remains active on the area of zero. One who finds zero will find the activeness of Brahman, and shall himself disappear from the objective world. One, who goes beyond, will find the Brahman where zero also vanishes along with the action on it. His acting state is only an appearance through illusion. But let alone, He is actionless. The minus-one can not exist when you find the zero; and the zero can not exist when you find the plus-one. The 'hole' does not exist as a 'hole' when you find a void there; and void being non-existing, does not exist as a void when you find the surrounding wall. The surrounding wall is now found as 'without a surrounding' by it. It is only a lone wall. And what you found to be a 'hole' and subsequently to be a 'void' is only the 'shape

of the wall'!! But before reaching the lone wall, there initially comes a hole -the result of an action of the wall on a void. The wall is acting on the *Sûnyatã* to create a hole. This creative *Brahman* is the God Himself. The plus-one comes active to create a minus-one, to create a phenomenal world, and to create a hole. God is active and the Brahman is not, for the wall does not really act from its own to create a hole. The active wall is only imaginary. It appears active for the purpose of creating a hole. When there is no hole, there is no *Sûnyatã*, and no action on the *Sûnyatã*. A lone actionless wall exists without a second.

The wall exists, giving rise to the illusory appearance of the hole, and also the void. *Brahman*, the absolute and the lone plusone, exists, giving rise to the *Māyā* -the zero, and also the universe -the minus-one. *Brahman* exists, and, therefore, they all appear as existing. "Tam Eva Bhāntam, Anûbhāti Sarbam!" (Kathôpanisad). Because He shines, everything else shines.

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Mãyã reigns supreme over the zero, and the zero is the 'capital of Queensdom' of Mãyã. Anything that exists in the objective world springs from this Queensdom. She controls the objective world from the capital city of zero. But there is no zero here, which will only be found in the Mãyãpuri -the 'capital of Queensdom'. Here exists no zero-heat, here exists no zero-volume, here exists no zero-mass, here exists no zero-time and here exists no zero-space. Here there are conservations only; here there are transformations only, here there are objectivities only, and here there are ideas only. If you wish to find a zero-motion, a zero-heat, a zero-conservation, a zero-transformation, a zero-object, a zero-idea, you shall have to search for it in the 'capital of Queensdom' only.

She also is the queen of the subjective world that creates an object and takes cognizance of it. She controls also the subjective world from her capital city of zero. When there is no subject, here can not be an object. One exists only in relation to the other. If one ceases, the other shall also cease to exist. The Quantum scientist knows that the phenomenal object is an illusion only, and that t has no real existence. But in order to know what in reality it is the Quantum-subject that exists in relation to the phenomenal object must cease. The mind must cease in order to witness the reality. So long as the source of something exists, that something shall also exist.

But when both the subject and the object cease to exist, this cessation will also appear as a zero. So we must now observe the zero, and try to understand it. With the cessation of the subject, md also the object, they in their totality shall come to a zero. But as we have already said, a zero is a zero only; and as such, it is bound to be non-existent. We may be careful to notice that we are not speaking now of a non-existence of the subject or all of its objects, but we are speaking of non-existence of the non-existence. The non-existence of non-existence is, and gives rise to, an absolute, positive and real Existence. If the subjective mind ceases, and the consciousness is still retained; not only the subject-object binary, but also the zero shall cease at once. When we take cognizance of the void, the 'hole' goes off; but that which again was wrongly considered as a void, also turns only to be the shape of the wall -the wall itself. Our first experience relates to the hole, and when the hole vanishes with dawning of knowledge, there comes a void as a second experience. But again with a dawn of the highest knowledge the void also vanishes; and a lone wall appears to our experience. Mãyã gets into a total dissolution with a dawning of the highest knowledge. The pure absolute: onsciousness shall appear as the lone Existence without a second.

And that is Brahman.

#### \*\*\*

Before coming to a discussion on *Brahman* Himself, we are required to answer the following question one might raise in the context.

"Why do you believe that the *Brahman* will at all emerge deconcealed at the very point of dissolution of Mãyã? There is no positive reason to believe it to be so, for it is also possible that there might emerge a total nothingness -a *nihil*- after the universe gets into dissolution."

Thus argued *Gandapādā*—an Indian philosopher -in his *Theory of Ajātavāda* more than a thousand years ago. A group of Quantum scientists is also raising the same question now. They all are admitting the illusory existence of the universe, but are still in doubt regarding the existence of *Brahman*.

Let us recall the example of a straight stick appearing bent, we have given elsewhere in this book. A straight stick appears bent at the point of water-surface when it remains half-merged in the water. This illusion -the bend in the stick -disappears altogether when the stick is taken out. But never was there a bend in the stick at any time before its merging into the water; there is no bend in the stick after its being taken out. There is, therefore, no bend now when the stick appears to be bent being half-merged in water. It was an illusion, and it vanishes when the stick is taken out of water. But it is strange that you are not taking cognizance of the stick when it is very much present before you in the broad day-light; and when the blend is not found, you say that nothing exists there!! The bend by itself proves the stick. The stick yet exists; and your conclusion that nothing exists is therefore not correct. The hole itself is the proof of the existence of the wall: The bend itself is the proof of the existence of the stick. But you remained confined to the bend only; and your vision could not extend to see the stick, which appeared bent before you. A bend appearing in the stick is the stick itself. If you can catch the stick by your intellect, you know that the stick exists even when it appears bent. The stick exists with or without the bend: Brahman exists with or without the universe. He is appearing as the universe.

Real ze that you yourself are the *Brahman*. Realize that you yourself are not the bend, which is an appearance only, but the lone stick without a bend. This realization is termed as liberation -to get liberated from a wrong conception, from an illusion. When you know yourself as the *Brahman* Himself, you do not need to achieve something yet unachieved. You are not achieving the *Brahmahood*; you are only realizing the yet unrealized truth that you are the *Brahman* Yourself: You are discovering the truth of the non-different existence, which you ever were. When you reach the truth, you also know what is false. You are to know who you really are.

You can not reach the truth by intellectual pursuits -you are to experience it. Intellectualism stands opposed to finding the highest truth. The more you try to reach Him by intellectual pursuits, the further away He goes from you, and nearer you are to the falsehood, for mind, the aboard of all intellectualism, itself has created this falsehood. A growth in intellectualism will lead to a growth of falsehood. However intelligently you may through your net, you can not catch that Fish, you wish to know about. If you want to know what a Fish is, be the Fish yourself. There

is no other way out to know it. Leave aside the net; do not desire to catch it, be it yourself.

For what can your intellect give you? Except some negations? Except something that comes with reference to the illusory existence? It can, of course, tell you what *Brahman* is not. It can not tell you what *Brahman* is. It can tell you only 'neti, neti', meaning not this, not this: *Brahman* is not mass, not volume, not time, not space, not...It can only tell you a phenomenal existence prefixing a 'not' thereto. It can not tell you anything of *Brahman* in a meaningful positive statement.

When we say that *Brahman* is the consciousness itself, we do not know what consciousness is, for we know a reflective consciousness only, and not a pure one. When we say that *Brahman* is one without the second, we have no clear idea of a singularity, for we know a state of multiplicity only. "Without the second" at once refers to the second, although there is a prefix, "without". When we say that *Brahman* is a timeless Existence, we only refer to the time. We have never experienced a timelessness.

Our intellect fails, and fails miserably; and still more miserable are our words to describe the *Brahman*. They get crippled much before the crippling of the intellect. Make any statement with reference to *Brahman*, and see how miserably it gets crippled or how meaningless it is for you. Our intellect fails in this area along with the words!!

Well, *Brahman* might be all this; but He is something still more. And this something still more you do not know about. It can not known intellectually. It is only through a *Brahman*-experience that you know what *Brahman* is. It does not suffice if you tell what the wall is not. It will suffice only if you can say what the wall is.

The *Brahman*-experience rewards you with a deathless-ness, When you experience *Brahman*, you know for certain that you are the *Brahman* yourself, who has no birth and death, and that the death of the body along with the mind is an illusory death only, Deathless you exist forever, for you are the Existence yourself. Realize that you were there to witness it when this universe came into existence with the Big-Bang, and even much before that -nay, you are the lone Existence that exists timelessly for ever. And never was there in reality a Big-Bang nor a creation, and neither will there in reality be a Big-Crunch. Realize that you, oh lone one! were dreaming of all these so long!!

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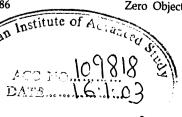
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