

## DIMENSIONS OF TIME

*'If we take eternity to mean not infinite temporal duration but timelessness, then eternal life belongs to those who live in the present.'*

*Ludwig Wittgenstein*

### Human Experience of Time

Human beings have always been intrigued by the enigma of time and the perennial existence of the "Eternal Now." A.R. Orage, a student of G. I. Gurdjieff, observes that: "Past time does not exist nor does future time exist. If you worry about what happened yesterday you will be certain to repeat it today. It is useless to waste energy over the past which no longer exists, and a future which may not exist."

The problem of time is the greatest riddle humanity has ever had to face. Religious revelation, philosophical thought, scientific investigation and occult knowledge, all converge at one point, that is, on the problem of time, and all come to the same view of it. Time does not exist! There exists no perpetual and eternal appearance and disappearance of phenomena, no ceaseless flowing fountain of ever appearing and ever vanishing events. Everything exists always! There is only one eternal present, the Eternal Now, which the weak and limited human mind can neither grasp nor conceive. (1)

Attempts to describe the relationship of the human mind to the perception of time cannot be expressed directly owing to the poverty of our language. Rather than a literal description, some theorists have suggested symbols and allegories to convey hidden meanings of the reality of time which cannot be expressed in words. These sometimes take the form of myths, fairy tales, teaching stories, parables and certain works of art and architecture.

In his seminal work *Tertium Organum* (first published in 1920), Russian philosopher, mathematician and spiritual teacher P.D. Ouspensky approaches the central riddle of time that mystifies the human mind – the flow of time seems to move from past to future, even though only the present moment exists in our immediate awareness:

Conditioned as we are by the properties of our perceiving apparatus, we *create time* as a convenience for perception of the outside world. Reality is continuous and constant, but we perceive reality as though through a narrow slit. What we see through this slit, we call the present; what we saw but see no longer, we call the past; and what we do not see at all but expect to see, we call the future . . . Usually, we consider the past as *no longer* existing. It has gone – vanished – changed, has become transformed into something else. The future does not exist either. It is *not yet*. It has not yet come, it is not yet formed. By the present we mean the moment of transition from the future into the past, i.e. *the moment of*

*the transition of a phenomenon from one non-existence into another.* Only during this brief moment does a phenomenon really exist for us; before, it exists as a potentiality, and after, it exist as a memory. But in actual fact this brief moment is a fiction. It has no dimension. On the contrary, we have every right to say that the present does not exist. We can never catch it. That which we manage to catch *is always already past* . . . This is exactly the way we think about things in time – everything passes, nothing returns! Spring is over, it exists *no longer*. Autumn has not yet come, it does not exist *as yet*. What then does exist? The present. But *the present* is a moment impossible to capture, it is continuously melting into the past. Thus, strictly speaking, the past, the future and the present do not exist for us. *Nothing exists!* Yet we live, feel, think – and something surrounds us. Consequently, there must be some fault in our customary attitude to time. (2)

Time measurement for practical purposes is based on astronomical cycles such as the day and year, common agreement and the cognitive capacities of the human mind. Ouspensky: "Time is not a condition of the existence of the universe, but only a condition of the perception of the world by our psychic apparatus, which imposes on the world conditions of time, since otherwise the psychic apparatus would be unable to conceive it."

Various qualities of time have been suggested by A.R. Orage:

- Time measures process, change, transformation
- The sense of time is sequential, not simultaneous
- Time is relative, not objective
- Time is dependent on the mode of perception
- Time is subjective, dependent on the conditions of the observer
- "Time is the exhaustion of the means to renew ourselves"

Our understanding of time is based on sensory experience, which limits our understanding of the possibility of higher dimensions of time, which remain invisible to normal sense perception and states of consciousness. Our senses reveal only *part* of the totality of reality. In *Living Time*, Maurice Nicoll, a student of both Gurdjieff and Ouspensky, elaborates: "We witness, apparently, events, people and things disappearing into total extinction, as the result of passing-time. This is the reality of appearances as registered by our senses. We cannot see into Time itself. The world in other parts of Time – if we begin to think in this strange way – is beyond the reach of our senses."

We associate time with movement, as the turning of the hands of the clock, or the apparent rising or setting of the sun; or we think of it as change in appearance, as the changing seasons, or the growth and decay of the body; or as something that splits life into past, present, and future. Following the evidence of our senses we believe that the present exists, but that the past and the future are non-exist-

ent and incapable of existing. *Where could they exist?* In this single moment of time called the present, in which you read this sentence, the visible world appears before you. You cannot see the existence of anything a moment ago or a moment hence, and because you cannot see it you do not believe in its possibility. Therefore you confine the sense of your existence to this single moment of time and to this you limit your notion of the existing. You believe that you exist now and only now . . . Since it rarely occurs to any of us that the nature of our senses makes what we call the present moment and the world as we know it, we suppose that the only possible present moment is *our* present moment. We reason from this basis. To imagine that our present moment is only *one point* in an infinitely larger present seems absurd. (3)

Nicoll's insight is congruent with earlier philosophical reasoning concerning the nature of time. The great German philosopher Immanuel Kant argued in his *Critique of Pure Reason* (1781) that space and time are categories of our thinking mind, properties which we ascribe to the external world: "They are only signposts, landmarks put up by ourselves by which we depict the world to ourselves. Projecting outside of ourselves the causes of our sensations, we build up these causes in space, and visualize continuous reality in the form of a series of consecutive moments in time."

Kant established the fact that everything perceived by the senses is perceived in time and space, and that outside of time and space we can perceive nothing through the senses, that time and space are the necessary conditions of sensory perception. And, above all, he established the fact that extension in space and existence in time are not properties of things – *inherent in them* – but merely properties of our sense perception. This means that, in reality, apart from our sensory perception of them, things exist independently of time and space; but we can never sense them outside of time and space, and the very fact of perceiving things and phenomena through the senses *imposes* on them the conditions of time and space, since this is *our* form of representation. Thus, by determining everything we know through our senses in terms of space and time, they themselves are only forms of our perception, categories of our reason, the prism through which we look at the world. In other words, space and time are not properties of the world, but merely properties of our perception of the world by means of sense-organs. Consequently, the world, taken apart from our perception of it, has neither extension in space nor existence in time. It is we who invest it with these properties when we sense and perceive it. The representations of space and time arise *in our mind* on its contact with the external world through the sense-organs, and they do not exist in the external world apart from our contact with it. (4)

Time by itself does not exist as a directly perceived reality. The only self-evident facts we experience are the existence of the world in which we live (outer world) and the existence of consciousness in oneself (inner world). Nicoll: "We have no grounds for arguing against the

obvious fact of *our own* existence, i.e. the existence of our inner life and the existence of the external world in which we live."

The direct outcome of these two fundamental data – the existence in us of a psychological life, i.e. sensations, representations, concepts, thinking, feeling, desires and so on, and the existence of the world outside us – is a division of everything we know into *subjective* and *objective*, a division perfectly clear to our ordinary perception. The 'subjective world' we perceive *directly*; it is in us; we are one with it. The 'objective world' we represent to ourselves as existing outside of us, apart from us as it were, and we take it to be exactly or approximately such as we see it. We and it are different things. It seems to us that if we close our eyes, the objective world will continue to exist, just as we saw it, and that, if our inner life, our subjective world, were to disappear, the objective world would go on existing as it existed when we, with our subjective world, were not there. Our relation to the objective world is most clearly defined by the fact that we perceive it as existing *in time* and *in space* and cannot perceive it or represent it to ourselves apart from these conditions. Usually, we say that the objective world consists of things and phenomena, i.e. of things and of changes in the state of things. A *phenomenon* exists for us in time, a *thing* exists in space. (5)

Time cannot be perceived the way objects can, and in a sense, time is *invisible*. Yet time is a dimension just like the three dimensions of space (length, width and height). Objects extend in time as well as space or else they would vanish. Although our physical body exists in the visible world of three-dimensional space, our inner world of thoughts, feelings and sensations has *temporal* existence rather than physical existence:

Our inner life – *oneself* – has no position in that space which is perceptible to the senses. But while thought, feeling, and imagination have no position in space, it is possible to think of them having position in some other kind of space. One thought follows another in passing-time. A feeling lasts a certain time and then disappears. If we think of time as a fourth dimension, or a higher dimension of space, our inner life seems to be related to this 'higher' space, or world, in more dimensions than those accessible to our senses. If we conceive of a higher dimensional world we might consider that we do not live, properly speaking, in the world of three dimensions that we touch and see, and in which we meet people, but have more intimate contact with a more-dimensional form of existence, beginning with *time*. (6)

## The Time-World

The theory that time is also a dimension of reality was first developed by German mathematician Hermann Minkowski (1864-1909). His concept of four-dimensional space-time laid the mathematical foundation for Albert Einstein's special theory of relativity in the early twentieth century, which presented the space-time matrix as the underlying structure of the

universe. In the ensuing years, the concept of the 'Time-World' was further developed by P.D. Ouspensky, Maurice Nicoll and Rodney Collin (all of whom were greatly influenced by the cosmological teachings of G.I. Gurdjieff).

When time is considered a dimension of reality it expands our worldview to encompass a greater 'Time-World.' "From this standpoint the world does not only exist in the known space of the present moment but in the dimension of Time itself. There is a *Time-World*, or World in Time – that is, in a space of more dimensions than our senses record. We touch this higher space at a point – the present moment." Maurice Nicoll elaborates:

Into this pin-point of the present, events are entering. From which direction are they coming? Following this line of thought, they are coming from the direction of Time itself – which is moving through us, or we through it, and so producing the illusion of *passing-time*. So, in order to think of *Time itself* we have to think of the direction in which events lie, the direction in which the events of yesterday and tomorrow are extended. We have to think of the world not only stretched out in space, but *stretched out in the dimension of Time* – in another, a higher, space. Everything, then, that we see in the world now is part of something in the Time-World. Everything is also a 'world-line' in higher space. No thing is merely the three-dimensional object in the present moment that it appears to be for our sensual understanding. Our lives are extended events in this higher space. Our perceptible existence is one aspect of our existence, a fraction of it, and our usual sense of ourselves only one particular instance of possible forms of this sense. It is evident that the fitting of higher space over lower space reverses our way of thought. It relates us to another way of thinking. From its standpoint, the momentum of visible phenomena does not create new phenomena. New phenomena result from the entry of the fourth dimension into the three-dimensional world of our experience, of higher space into lower. We can think from the natural sense-given point of view, or from an entirely new point of view based on the existence of higher dimensions. One point of view will answer some things, the other, other things. One will relate us to life in one way – which is essential – and the other will relate us to life in another way – in an *additional way* that gives us standpoints that we could not derive from empirical experience. If we accept higher dimensions, we will understand that truth cannot be one and the same thing in all states of consciousness. (7)

The dimension of the great Time-World suggests that in this world nothing can perish. Only the sense of passing-time makes things seem to vanish into nothingness: "Everything stands in its place in Time and though today replaces yesterday, yesterday is always today for itself. Our passage through the dimension of Time gives us the experience of succession. We believe the past is annihilated. How could there be room for yesterday today?"

It is certainly strange to think that the past may be changing through the action of the present and future. But such thoughts belong only to the four-dimensional conception of man, through which all the *life* is made alive. Man is a living *world-line*. Let us conceive mankind as a network of these living lines in higher space. Let us suppose that the senses cut through all these lines at a point called 'present,' showing us a cross-section, that is, a picture of three-dimensional bodies, a mass of perceptible people, in one moment of passing-time called 'present.' These living lines in four-dimensional space are, then, to be thought of as living 'organisms' of which every part influences every other part. This four-dimensional organism is not the perceptible body, but the invisible body containing the visible body. By sense, we are only related to the visible body itself, that is, as given perceptually through sight and touch and hearing. Viewed thus, the *life*, rightly conceived, is not merely a local phenomenon in passing-time, confined to the point we call the present, and isolated in the three-dimensional world. As direct experience, it is so – but it is more. It is more because we are not regarding three-dimensional space as the *sole container* of things. It is the sole container so far as empirical experience, that is, the experience of our senses reveals the 'world' to us. We are trying to force our thoughts beyond the limits of sense, beyond that aspect of the total WORLD rendered by sense, towards the realm of *idea*. (8)

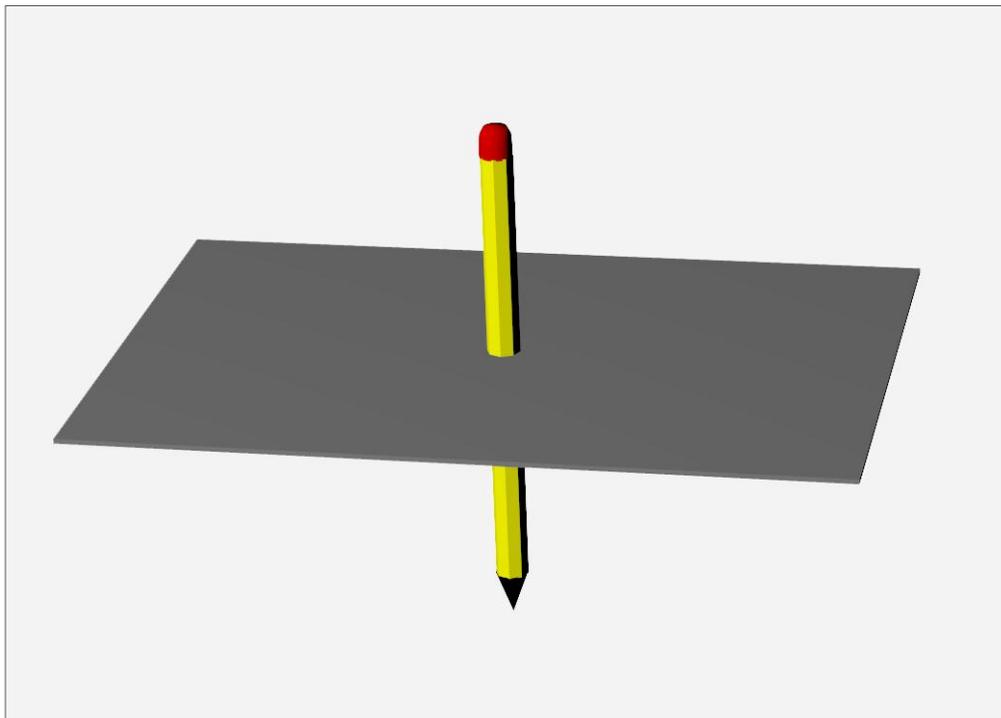
The present moment or *now* is only one point in the higher dimension of Time in which all world-points, both past and future, exist. From this perspective, all of humanity from Adam to the present-day, exist in some time-point in the world. In the Second Book of Enoch, the text addresses this possibility: "Every soul was created eternally before the foundation of the world." This implies that to the Divine mind all *is*, at once – together and not successive. In the words of Maurice Nicoll: "From this angle of vision, we catch sight of the strange view that the world is developing *in all its Time-length*, from 'beginning' to 'end.' It is regarded as existing at every point. That would mean that history is alive – always living and changing. It would mean that an *age* is a living thing."

As long as we believe that only the present moment is actual and real, and past and future are non-existent, we are limited in our perspective of the totality of life. We have no sense of the indestructible eternal *living life*:

It is extremely difficult to grasp this extraordinary *idea* about time. We cannot imagine existence in another part of Time – *in all parts* of Time. It does not seem possible to believe that what lies *for us* hundreds of years in the past may lie for some other beings hundreds of years in their future. Such a view means that our *was*, *is*, and *will be* are relative. There is no absolute past or future. All is present. We are living in this vast *present*, at one point of it. We are not really living in the world of three-dimensions, but in a part of *living history* . . . These views point to another existence of things in higher space. Higher space is time-less. Our ordinary consciousness touches a minute portion of total reality in higher space, like a revolving mirror that reflects only one part of the surround-

ing landscape and sets it into apparent motion. The ratio of our senses sets *Time* into movement, and it becomes passing-time. Higher space becomes time. Such is the view that confronts us. (9)

The concept of higher dimensions in the Time-World is sometimes expressed by an analogy. Picture a world of only two dimensions such as a plane (length and width) in the form of a piece of paper. The extension of the third dimension would be thickness, which for a sheet of paper would be minute. If a pencil is pushed vertically through the sheet, only a thin section or cross-section of the pencil will lie in the thickness of the paper. If we imagine hypothetical beings living on the sheet of paper ("Flatland") (10), then they would only perceive the cross-section of the pencil and the rest of the pencil would be invisible to them.



This analogy can be applied to human experience: "For us, living in a three-dimensional world, our perception of things may be relative. The present moment is comparable to a cross-section of a vastly greater world, extended in directions hidden to our senses and *existing* in directions which are unknown and inaccessible to us."

In a somewhat similar way, we can think of our relationship to the *fourth* dimension as one that is limited to the 'thickness' of the fourth dimension we experience naturally – that is, to what for us human beings is the measure of time called 'present-moment.' The thickness of the paper is the measure of the third dimension for the paper-beings and only what lies within it – all cross-sections of any three-dimensional objects penetrating their world – can form part of their present-moment visible world. The rest would be invisible, non-

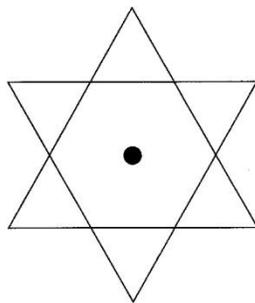
existent; *not in their world, though in our world; not in their present-moment, though certainly in our present-moment.* So the pencil itself, as an integrated whole, would exist in the invisible world for them. But they could never conceive it – as pencil. Only a cross-section (which has no resemblance to an actual pencil) could exist in their visible world, and *all the rest of it would be in their past or future.* If the pencil is slowly passing through their paper-world successive cross-sections of it appear to them. What has already appeared will pass out of their world, be no longer visible and seem to them to be in the *past* – in the already-experienced. The part of the pencil that has not yet passed into their visible world will be in their *future* in the not-yet experienced. To us, with our higher dimensional vision, all the parts of the pencil co-exist simultaneously – *its beginning and its end* – and it exists as a whole, a unity, having a form and function absolutely inconceivable to paper-beings. (11)

## Multidimensional Time

The concept of higher dimensions of time was explored in the early twentieth century by P.D. Ouspensky, principally in two important works: *Tertium Organum* and *A New Model of the Universe*. Significant contributions to the subject were also made by Maurice Nicoll (*Living Time*) and Ouspensky's senior student Rodney Collin (*The Theory of Celestial Influence* and *The Theory of Eternal Life*). Much of Ouspensky's space-time model was later confirmed by his teacher G.I. Gurdjieff and detailed in *In Search of the Miraculous*.

Ouspensky's theory combines the three dimensions of space with three dimensions of time to produce a six-dimensional description of the universe. The three dimensions of Euclidian space are based on three perpendicular coordinates or parameters – length, width and height. On the other hand, the three dimensions of time express increasing levels of temporal complexity and the actualization of possibilities.

The three dimensions of space and the three dimensions of time are represented pictorially by the ancient symbol of the six-pointed star or 'Seal of Solomon.' The two interpenetrating triangles show the perfect union of space and time whereby "every point of space includes the whole of time and every moment of time includes the whole of space; where *everything is everywhere and always.*"



One triangle represents the three visible dimensions of space and the other the three invisible dimensions of time. Within this six-pointed star is the cosmic representation of space-time as a unity. However, the reality of six-dimensional space-time is, in a practical sense, inaccessible and incomprehensible to us in our ordinary state of consciousness, as our sense organs are limited to the perception of only the visible material world surrounding us.

The dimensions of space and time occur in each level or order of the universe, from microbe to galaxy, although the experience of time differs in each 'cosmos.' Rodney Collin: "We have to suppose for each cosmos a period of six dimensions – the first three constituting its space, the fourth its time, the fifth its eternity, and the sixth the absolute. With each change from one cosmos to another, the whole period of dimensions shifts, one being abandoned, one gained and the rest changing, each into the next. Thus, the length of one cosmos will appear as time to a lesser cosmos, as eternity to the next smaller, as absolute to the lesser still." Each dimension of space-time can be represented by a geometric shape or figure. In *The Theory of Celestial Influence*, Collin describes this representation:

Entry into each new dimension represents *movement in a new direction*. A *point* of no dimensions, such as the point of a pencil or a lighted cigarette in the dark, when moved, traces a *line*. A *line* – the spoke of a bicycle-wheel or a crayon, for example – when spun or moved at right angles to its length traces a *plane*. A *plane* moved at right angles to itself (or a disc spun on its axis) traces a *solid*. A *solid*, such as a man, when extended into the past and the future, traces a *lifetime*. A *lifetime* extended at right angles to itself, brings us to the idea of parallel times, of *time-repetition* or eternity. The totality of such repetitions, projected in yet another direction, implies an *absolute whole*, the realization of all possibilities, everything existing everywhere. Each cosmos may thus be seen in seven ways, according to the perception of the observer:

- (1) as a *point*, without dimension.
- (2) as a *line*, in one dimension.
- (3) as a *plane*, in two dimensions.
- (4) as a *solid*, in three dimensions.
- (5) as a *lifetime*, in four dimensions.
- (6) as a *life eternally repeating*, in five dimensions.
- (7) as *all*, in six dimensions." (12)

In talks with his students in Russia, Gurdjieff developed the idea of multiple dimensions in the universe existing in the ratio of zero to infinity. This principle is expressed in mathematics: "In geometry this is the relation of one unit of a certain number of dimensions to another unit of a greater number of dimensions. The relation of a point to a line, of a line to a plane, of a plane to a solid, of a solid, that is, of a three-dimensional body to a four-dimensional body, and so on." The 'period of dimensions' contains within itself seven dimensions from zero to infinity. The zero dimension and the first three dimensions of space are described in Ouspensky's *In Search of the Miraculous*:

The 'period of dimensions' contains within itself seven dimensions: The zero dimension, the first, the second, and so on up to the sixth dimension. The zero-dimension or the point is a *limit*. This means that we see something as a point, but we do not know what is concealed behind this point. It may actually be a point, that is, a body having no dimensions and it may also be a whole world, but a world so far removed from us or so small that it appears to us as a point. The movement of this point in space will appear to us as a line. In the same way the point itself will see the space along which it moves as a line. The movement of the line in a direction perpendicular to itself will be a plane and the line itself will see the space along which it moves in the shape of a plane . . . . A three-dimensional body differs from the point, the line, and the plane by the fact that it has a real physical existence for our perception. The plane is in fact only a projection of a body, the line is a projection of a plane, and a point is the projection of a line. A "body" has an independent physical existence, that is, it possesses a number of different physical properties. But when we say a thing 'exists,' we mean by this existence in time. But there is no time in three-dimensional space. Time lies outside the three-dimensional space. (13)

Each of the three dimensions of time in Ouspensky's model has certain qualities and characteristics:

#### First Dimension of Time

- Ordinary or passing-time
- Living in time, individual lifetimes
- Succession, flow of time from past to future
- Only one of many possible sets of events are actualized each moment
- Choice is determined by accident or fate

#### Second Dimension of Time

- The eternal present or *now*
- Perpetual existence of every moment
- Actualization of multiple but finite possibilities and potentialities
- Eternal recurrence or repetition
- Free choice or destiny within a specific range of possibilities

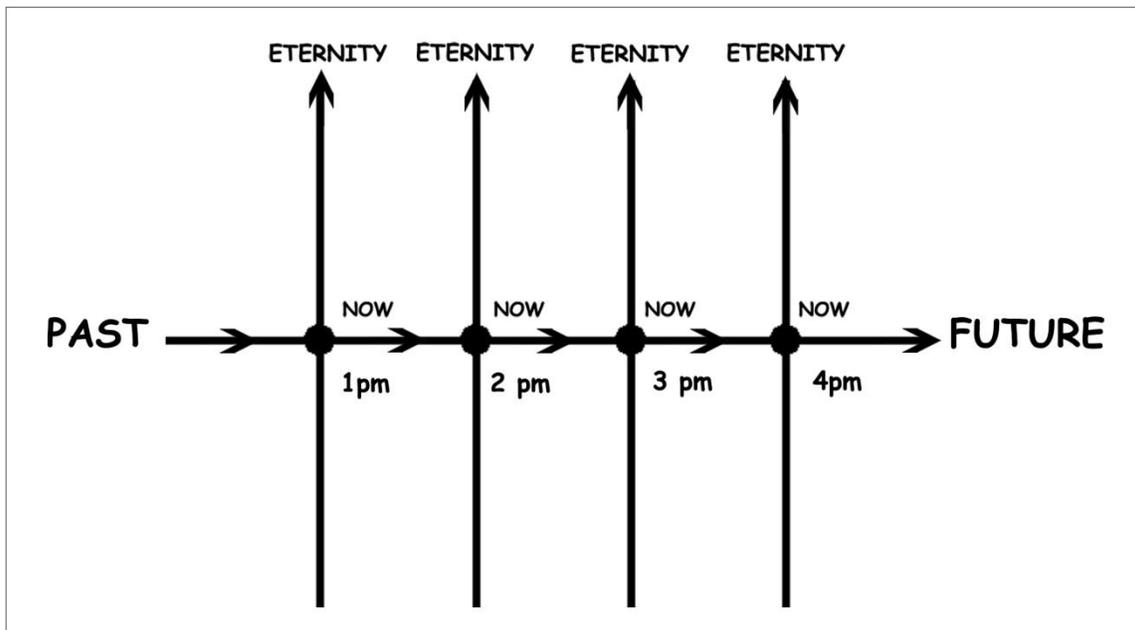
#### Third Dimension of Time

- Actualization or realization of all possibilities
- The interaction between potential and actual
- Infinite duration and existence

- Unity, the One, everything exists everywhere
- The Absolute, All and Everything

In Ouspensky's model, the first dimension of time is chronological time represented by a line. This is ordinary time as we perceive it, the so-called flow of time from past to present to future.

The second dimension of time, the eternal present, is perpendicular to the first dimension of linear, sequential time:



Each perpendicular line designates *now* for a given moment, and expresses the perpetual existence of past moments and possibly of future moments. "Each of these perpendicular lines is the eternal *now* for some moment, and every moment has such a line of a perpetual *now*." This second dimension of time forms a surface or plane in relation to the first dimension, the line of time. Ouspensky relates how this second dimension of time introduces a higher element to our understanding of the nature of time:

Everything we know, everything we recognize as existing, lies on the line of the [second] dimension, the "historical time" of our section of existence. This is the only "time" we know, the only time we feel, the only time we recognize. But though we are not aware of it, sensations of the existence of other "times," both parallel and perpendicular, continually enter into our consciousness. These parallel "times" are completely analogous to our time and consist of before-now-after, whereas the perpendicular "times" consist only of now, and are, as it were, cross-threads, the *woof* in a fabric, in their relation to the parallel lines of time which in this case represents the *warp*. (14)

One of the important implications of the existence of a second dimension of time is the notion of 'finite possibilities' at each moment of time which have the potential to be actualized in ordinary time (the first dimension):

Each moment of "now" on the line of time, that is, on one of the parallel lines, contains not one, but a certain number of possibilities, at times a great, at others a small number. The number of possibilities contained in every moment must necessarily be limited, for if the number of possibilities were not limited, there would be no impossibilities. Thus, each moment of time, within certain limited conditions of being or physical existence, contains a definite number of possibilities and an infinite number of impossibilities. On the table before me there are many different things. I may deal with these things in different ways. But I cannot, for instance, take from the table something that is not there. I cannot take from the table an orange that is not there, just as I cannot take from it the Pyramid of Cheops. Each moment contains a definite number of possibilities. I may actualize one of the existing possibilities, that is, I may do something, I may do nothing. But whatever I do, that is, whichever of the possibilities contained in the given moment is actualized, the actualization of this possibility will determine *the following moment of time*, the following *now*. This second moment of time will again contain a certain number of possibilities, and the actualization of one of these possibilities will determine *the following moment of time*, the following *now*, and so on. Thus, the line of the direction of time can be defined as the line of the actualization of one possibility out of a number of possibilities which were contained in the preceding point. The line of this actualization will be the line of the fourth dimension, the line of time. We visualize it as a straight line, but it would be more correct to think of it as a zigzag line. The perpetual existence of this actualization, the line perpendicular to the line of time, will be the line of the fifth dimension, or the line of eternity. (15)

The conventional meaning of eternity is the infinite, limitless extension of ordinary time.

But in certain metaphysical systems of thought, such as Indian philosophy, eternity is seen as the *Eternal Now*. Ouspensky: "Eternity enters into every circle of time and into every moment of the circle of time. Eternity is the curvature of time. Eternity is also movement, and *eternal movement* – eternal repetition or eternal recurrence."

The third dimension of time (or the sixth dimension of space-time) is the realization of *all possibilities* in which all is One – Divinity itself:

The sixth dimension will be the line of the actualization of other possibilities which were contained in the preceding moment but were not actualized in "time." In every moment and at every point of the third dimensional world there are a certain number of possibilities; in "time," that is, in the fourth dimension, one possibility is actualized every moment, and these actualized possibilities are laid out one beside another, in the fifth dimension. The line of time, repeated infinitely

in eternity, leaves at every point unactualized possibilities. But these possibilities, which have not been actualized in one time, are actualized in the sixth dimension, which is an aggregate of "all times." The lines of the fifth dimension, which run perpendicular to the line of "time," form as it were a surface. The lines of the sixth dimension, which start from every point of "time" in all possible directions, form the solid or three-dimensional continuum of time, of which we know only one dimension. We are one-dimensional beings in relation to time. Because of this we do not see parallel time or parallel times for the same reason we do not see the angles and turns of time, but see time as a straight line. (16)

The three dimensions of time together create a *spiral* of time in which the second dimension is movement in the circle (eternal repetition or recurrence) and the third dimension is the way out of the circle with branches of possibility at every point of the circle:

We live and think and exist on one of the lines of time (the first dimension). But the second and third dimensions of time, that is, the surface on which this line lies and the solid in which this surface is included, enter every moment into our life and into our consciousness, and influence our "time." In thinking of the *time solid* formed by the lines of all possibilities included in each moment, we must remember that beyond these there can be nothing. This is the point at which we can understand the *limitedness of the infinite universe*. (17)

Ouspensky's three-dimensional model of time is congruent with Gurdjieff's cosmological teachings of three dimensions of time: ordinary time is the fourth dimension of space-time, eternity is the fifth dimension, and the actualization of all possibilities is the sixth dimension:

Time, as we feel it, is the fourth dimension. Existence is for us existence in time. Existence in time is movement or extension along the fourth dimension. If we take existence as an extension along the fourth dimension, if we think of life as a four-dimensional body, then a three-dimensional body will be its section, its projection, or its limit. But existence in time does not embrace all the aspects of existence. Apart from existing in time, everything that exists, exists also in eternity. Eternity is the infinite existence of every moment of time. If we conceive time as a line, then this line will be crossed at every point by the lines of eternity. Every point of the line of time will be a line in eternity. The line of time will be a plane of eternity. Eternity has one dimension more than time. Therefore, if time is the fourth dimension, eternity is the fifth dimension. If the space of time is four-dimensional, then the space of eternity is five-dimensional. The sixth dimension is the line of the actualization of all possibilities. The fifth dimension is the line of the eternal existence or repetition of the actualized possibilities. The fourth dimension is the sequence of the moment of the actualization of one possibility. Seven dimensions, from zero-dimension to the sixth dimension, constitutes the full period of dimensions. Beyond this there is nothing or the same period may repeat itself on another scale. (18)

## Time and Human Functions

Gurdjieff identified three 'centers' or 'brains' in human beings: the moving-instinctive, feeling, and thinking centers. Each center contributes to our understanding of reality through its unique functioning and processing of perceptions and information. A complete understanding of any phenomenon requires input from all three centers:

We must understand that every normal psychic function is a means or an instrument of knowledge. With the help of the mind we see one aspect of things and events, with the help of emotions another aspect, with the help of sensations a third aspect. The most complete knowledge of a given subject possible for us can only be obtained if we examine it simultaneously with our mind, feelings, and sensations. In ordinary conditions man sees the world through a crooked uneven window. (19)

Although physical objects, including our body, can be located in three-dimensional space, thoughts and feelings cannot. They seem to exist in time, not space. Our physical bodies act as the interface between the outer world and our inner experience, and exist in the first dimension of passing-time. In *Man in the Cosmos: G.I. Gurdjieff and Modern Science*, Christian Wertenbaker – a student of Gurdjieff's Fourth Way teachings – elaborates: "Our bodies are subject to the laws of material things: they can only be in one place at one time, movements must be performed in a sequential fashion, and sensations appear sequentially in accordance with the stimuli that excite them. The 'moving-instinctive' brain operates primarily in this mode, utilizing sequential chains of reflexes and preprogrammed patterns of movement."

Our emotions often seem to compress or elongate our perception of time – in a sense, they are timeless. The intensity of emotions in certain situations, such as mortal danger, seem to make time "standstill." For other powerful emotions such as deep depression or suicidal intentions, the experience seems to last "forever" with no visible end in sight. Wertenbaker: "Emotions seem to live in 'eternity.' Certain aspects of emotional life make sense if we regard emotions as especially related to this dimension of time. For our emotions always have the subjective quality of being 'forever.' Being in love is forever. Even my moods have this quality. In a bad mood I cannot conceive emotionally of any other." Emotions also guide or drive many of our thoughts. As well, they manifest in the physical body through, for example, muscle tension, increased heart rate, and sweat gland activity.

The thinking center has the ability to traverse from past to present to future, and between possibility and actuality. "A unique capacity of mind is the perception of possibility. Our thoughts constantly consider different possibilities, both in the past and in the future; thinking could be called the selection of some configurations of possibility from the many choices that constantly bubble up before our inner vision."

The mind roams freely in the past and the future, and among many possibilities at each juncture. I cannot undo an action, but I can without any difficulty imagine not having done it. I can remember the past, and imagine what might have been if I had done something different. The mind is generally much more occupied with these elaborations than it is with "what is actually happening now." Most importantly, there is no mental barrier between the future and the past, or between what has happened and what might have happened. No alarm signals that thought is passing through one of these boundaries. The part of our minds we live in most of the time has no limitations in these directions. And this is also its strength: imagination makes us capable of building bridges, playing chess, and planning for the future. This mode of functioning is reminiscent of Ouspensky's third dimension of time: "the line of the actualization of all possibilities." (20)

As we experience time, sequential change is the first dimension, the realm of possibilities is the second dimension, and the eternal existence of everything is the third dimension. "Nothing can exist in the world of our inner experience without the three dimensions of time. The existence of different possibilities would in a sense not be real if there were no possibility of change, and change would also not be real if there were not different possibilities; neither could exist without the eternal existence of everything."

In *The Enneagram of G.I. Gurdjieff*, Christian Wertenbaker deftly summarizes the nature of the three dimensions of time as they relate to the three human centers or brains:

Each of these three dimensions can be thought of as having a special relationship with one of the three brains. The body moves in ordinary time and cannot escape it, and its brain, centered in the spinal cord and brainstem, generates a wide variety of reflexes to keep it intact as circumstances change. The body always exists *now*. The mind, centered in the cerebral cortex, however, is free to look forward or backward in time and examine all possibilities; it gives us the capacity to remember, analyze, plan, and foresee. The feelings seem particularly connected with the dimension of eternity: feelings have a quality of being "forever," and they are strongly related to the perception of "energy" or "life." Energy in turn is closely related to vibration – the energy of a photon is proportional to the frequency of its associated electromagnetic wave – and vibration, being cyclical, a pattern that recurs over and over, has a quality of eternity. (21)

One of Gurdjieff's principal teachings was the importance of integrating our inner world of experience with the outer world of phenomena and impressions, following the dictum: 'Be in the world, but not of the world.' A.R. Orage, whom Gurdjieff authorized to transmit his teachings to America, once told his students that it was their responsibility to develop their inner essence while at the same time engaging fully with the outer world: "Every person is said to have a garden in the whole field given to humanity. One's state in the cosmic scale depends

on the tilling of his or her own garden.” This task can be accomplished by approaching time from a new perspective in which each day is seen as a gift, an opportunity, to fully experience life by developing all our functions – physical, emotional and mental – in a harmonious, integrated whole:

We perceive only those phenomena that have some duration, but many periods of duration are too rapid for us to perceive the intervals between them. Duration of time varies for different percipients. We think it difficult to perceive the third dimension of time, though in a sense we are constantly perceiving it, because every being we meet is one of our potentialities. The universe we see is ourselves in the third dimension of time. Time is the sum of our potential experiences, the totality of our possible experiences. We live our experiences successively. Succession is the first dimension of time. To be able to live experiences *simultaneously*, is adding a second dimension to time. To be aware of this simultaneity, is solid time, or the third dimension of time. When we have identified ourselves with time, as Revelation says, ‘Time shall be no longer.’ We struggle with time in order to extract experience. The more aware we are, the better use we make of time. We think it is our enemy because it will not wait for us to have our experiences. The flow of time through us gives us our chance to extract what we can. Time is a three-fold stream passing through our three centers (mind, emotions, instinct). We fish in that stream. What we catch is ours. What we don’t catch is gone. Time does not wait for us to catch everything in that stream. If we catch enough, we have enough to create the three bodies and become enduring. But our relation to time has to be immediate. *Our work is to live, be aware, in the present.* As Rabbi Hillel put it centuries ago: ‘If not now, when? If not here, where?’ (22)

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