

Time from the Aristotle's perspective

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ABSTRACT

Aristotle describes "Time" as the amount of motion. For Aristotle, time as the Eternal Image as it is the case for Plato has no signification. The Aristotle's perspective is also incompatible with that of Plotinus who considers time as dynamism and motion of soul. Aristotle considers time as the amount of motion on a continuum of pre and post (before and after) other than the motion itself. The Medieval and modern philosophers, also examine time from special points of view in line with their own empirical and rational approaches. Not only, does Aristotle examine time from a natural and physical perspective, but he also addresses aspects of time, particularly the moment of "Now". He considers the moment of "Now" as the live and real time moment. Aristotle maintains that time is a phenomenon depending on the soul. The Aristotle's perspective, in fact expresses a kind of dependency between time and the identifier subject (subject); i.e. Aristotle is concerned with examination of time from a subjective view.

Keywords: Eternal image, Time, Motion, Subjective, Aristotle's perspective

1. INTRODUCTION

One might say that Aristotle is the first Greek philosopher who has ever stated an explicit and concise definition of Time. He considers the natural world as being subject to any transformation and changes. Changes and transformation do have profound signification for Aristotle and include all quantitative and qualitative and spatial changes. Though, for Aristotle, Time and Change are closely related, he interprets time in regard to changes and variation not vice versa. Time is not a kind of motion rather it is based on motion. For Aristotle, the concept of transformation is highly fundamental and critical. It appears that time for Aristotle is a global order in which all things get related. We might say time consists of three parts of the past, the present and the future. The past has gone and it does not exist now. The future, also is going to come and yet to exist while the present time is a boundary between the past and the future and consequently, it is not regarded as part of time. In other words, "Now" is volatile and transient

and lapses rapidly. Since, there are no time components, how can Time exist on its own? Saint Thomas Aquinas asks while interpreting the Aristotle's view:

"When something is comprised of parts and components which do not exist, how can that thing contribute to reality?" (Aquinas, 1999, Lecture 15).

In the fourth Physics book, chapter 10-14, Aristotle while discussing place, and vacuum and concluding favorable results begin to discuss Time (Chronos). For him, Time is fluid and volatile; time and motion are not the same, because motion is highly diverse while time is always the same. However, time is constantly related with motion. In the beginning of chapter 10 of the fourth Physics book, Aristotle first specifies his own purpose and the discussion methodology and he then expresses his own perspective. Of course, Aristotle is aware of the discussion of time as being difficult; however, he first states the views of the predecessors and particularly the view of the sophists regarding the existence of time and thereafter he presents his own view. Aristotle, in fact raises several questions regarding Time. 1-Is time among things which do exist or among things which lack existence? 2-What is the nature of time? In addition to this, the Aristotle's question does not include existence and what of Time rather Aristotle wants to know is "Now" always the same or is always subject to changes and transformation and that what is the relation of time and change? (Aristotle, 2013, part 10, 217 b29).

Thus, Aristotle does two things about Time. 1-First he examines the real existence of time, 2-He examines is there a single and same "Now" during time or that we are faced with several "Now"?

Examination of real existence of time

In the beginning of chapter 10 of the Book Physics with regards to the real aspects of time, Aristotle states:

While examining the issue, doubts arise as to the fact that time either has no existence or whose existences is vague and unknown; because part of time has been and it is not now, while the other part is going to come and is not still accomplished. However, both indefinite time and any kind of time which you assume consist of these parts. Naturally, man cannot assume something to be contributing to reality while it is perceived to consisting of components which do not exist. (Aristotle, 2013, p. 10217 b32).

Besides this, if something as having parts is supposed to exist, it is imperative for it to have all or some of its parts exist when it exists. However, regarding time, though time has parts; when some parts of it have existed while some others need to exist where no part of it exist. According to this, "Now" is not part or a component of Time. A part is a limit of a whole; a whole which must be comprised of these parts. In other words, one should not postulate "Time" is comprised of these "Nows" (Aristotle, 2013, p. 10, 218, a3).

Saint Aquinas, while interpreting the Aristotle's theory states regarding the real existence of time as following:

If it is supposed for something to be comprised of parts where those parts do not exist, that thing cannot exist nor have substance. Time consists of parts which lack existence because, part of time is of the past and no longer exists while part of time is of the future which is still to bear. These two parts will involve the whole of time as indefinite and eternal time. Therefore, it is not possible for time to be something: second, as long as things as being divisible exist, it entails it to have some parts of it to exist. However, time does not encounter with these kind of

stuff. Because, part of time has lapsed prior to this and another part is in the future, such that there is no divisible part of the potential time. Now that it is actual, there is no part of time because it is part or measure of a whole or a component of a whole. However, one cannot consider the "Nows" as time parts. This issue is substantiated in the sixth book. Therefore, time is not something for discussion (Aquinas, 1999, Lecture, 15).

According to the Aquinas theory, time cannot be a something, because time is comprised of parts which do not exist; thus it cannot exist. In fact, no part of time can ever exist actually, rather each of the parts dissipate rapidly and get destroyed. It appears to be sound when it is said time is not as meaning material or some physical substance. It cannot either be essence because it does not enjoy stability or durability. However, we understand time but what it is as Husserl has brought in his book regarding the phenomenology of Time; Internal awareness, time is of complicated affairs and turns to be difficult.

"Now" from the view of Aristotle

Aristotle discussed the issue of "Now" more than anything else. Has "Now" been the same throughout time or always been subject to changes and transformation? For Aristotle, this question cannot be answered easily. In fact, one cannot easily state that "Now" is single or the same throughout time and or can one say that "Now" transforms during time. "Now" is on one hand single and the same and on the other hand means different and transformed. In other words, as long as "Now" is consecutive and successive, it is different. However, the foundation and underpinning of "Now" is the similarity and this homogeneity. Therefore, motion matches with amount and size and time, too is commensurate with motion (See Aristotle, 2000).

Aristotle considers the moment of "Now" as a point which bifurcates two parts from a line. He does not consider the "Now" moment as part of the past and the future, though he refers in some writings that the moment of "Now" is part of the past and the future. Aristotle first assumes that "Now" constantly transforms. If "Now" changes constantly, in this case, the previous "Now" needs to be stopped for replacing the current "Now". The question arising is that when will this occur? Undoubtedly, this cessation does not take place in the same time where the current "Now" exists.

Of course, in part 10 of the Physics book, Aristotle states:

If "Now" constantly transforms, if no part of time being different are not concurrent (unless the part it involves and the part involved is involved by as some shorter time being involved by longer time) and if "Now" which is not (existing previously), it should have been stopped at a time, thus the "Nows" cannot be concurrent together rather the previous "Now" must have been stopped for being. However, the previous "Now" cannot have been stopped on their own (because in that case they need to have been existed) and it cannot be in the other "Now". Therefore, we might assume the "Now" cannot be in side with the other unless momentarily. Thus, if the "Now" cannot sit with the other "Now", in that case it is imperative for numerous "Now" to exist together where this is postulate is irrational (Aristotle, 2013, p. 10, 218a 11-). Thus, from the view of Aristotle, two parts of time which are not the same cannot exist concurrently unless one of which involves and overwhelms the other; like a year which involves months and months which take days. Therefore, days, months and years do exist together. However, since "Now" is indivisible, it cannot involve another "Now". Thus, if we accept two "Now" concurrently, in that case the "Now" existed prior to this and no longer exists should have been temporal. Thus, two "Now" never exists together rather previous "Now" should exist. However, the previous "Now" cannot exist automatically (because in that case it

has to exist) and cannot exist in another "Now". Therefore, we might assume the "Now" cannot be in side with the other unless momentarily. Thus, if the "Now" cannot sit with the other "Now", in that case it is imperative for numerous "Now" to exist together where this is postulate is irrational (Aristotle, 2013, p. 10, 218a 21).

Meanwhile, if conformity with time means being in a single and similar "Now", i.e. it is concurrent prior and after in the same "Now", in this case, affairs took place a thousand years ago need to be concurrent with affairs which take place today and nothing will exist previously and in advance where this is impossible. Aristotle, while stating the fact that one cannot definitely specify whether the "Now" is the same or different refers to one of the most difficulties of understanding time (Aristotle, 2013, p. 10, 218a 21).

Saint Aquinas states in the 16th lecture of his Speech and describes the Aristotle's argument as follows:

First reason: things being divisible indefinitely cannot have only one boundary whether that thing has a single dimension like a line or have more the one dimension like a level and an object. Because, boundaries of a single dimension line are two pointed and boundaries of bi-dimensional levels are multi lines while the boundaries of an object have several levels. Meantime, boundaries of time are "Now" and since one can understand the definite time, thus there must be more than one boundary, i.e. more than one "Now".

Second reason: It is said a category of things are not concurrent and are not before or after and do exist in one "Now". Therefore, if there only one "Now" which remains fixed during time, it is necessary for them to have existed thousands of years ago where this is irrational. To sum up, Aristotle, concludes there are conflicting reports and opinions about ideas (Aquinas, 1999, Lecture, 16).

Aristotle also points out that there is no a series of ""Nows" in the same meaning rather there is one "Now" which is associated with different occurrences which create pre and post experiences, meaning that when "Now" is related with different occurrences in the process of motion, it is as substratum which involves features. This means that "Now" remains the same as a substratum because "Now" is something which is in motion both before and after. Aristotle refers to diversity and disagreements regarding "Now". However, he states "Now" can be countable as long as it is pre and post and we understand it as "Now".

Relation of time and motion

Aristotle examines this postulate that time is motion. He refers to two reasons and concludes that time is not motion rather it is amount and number of motion. In chapter 10 of the book Physics he argues:

Since time is usually assumed to be motion and a kind of change, we need to investigate this perspective. First change and motion changes in only one thing where the thing moves per se and gets transformed and finds the opportunity of being. Meanwhile, time is equal in all places with all thongs (Aristotle, 2013, p. 10, 218a 21). Second, changes and motion always take place rapidly or slowly whereas time has no such state and one can determine slowness and fastness by way of time. In other words, fast is that thing which goes through more distance in a shorter period of time and slowness is that thing which goes through shorter distance in a longer period of time. However, time cannot be defined by time, i.e. time cannot be defined by means of an existence or specified amount of time or definite kind of time (Aristotle, 2013, p. 10, 218a 21).

As stated, for Aristotle, motion (change) occurs either in a moving thing or somewhere where a moving thing is located whereas time is equal and similar in all places and with all things. Thus, time is not motion rather it is amount of motion in regard to the fact that it is countable. Some interpreters argue that for Aristotle time is a single global order to which all transformations get related. This interpretation will enable them to explain two justifiable and effective Aristotelian claims:

1. First, "Now" is moving other than being fixed
2. Second, time depends on the kind ontologically (Coope, 2005).

Aristotle accepts a kind of correlation between time and motion and makes no distinction between motion and transformation. Aristotle argues there is no time without motion and without time, no motion will be defined or specified. In other words, though time is neither the same as motion nor independent from motion, hence time and motion can be understood together. Time will be assessed and defined by means of motion and motion will be defined and evaluated by time.

There is no time without motion because mental states do not change whatsoever, or we do not understand any sort of change we cannot comprehend time lapsing..... in this case, if at a time we do not recognize any sort of change and have not no perception of the existence of time happening to us and if it appears that soul is situated in a indivisible state. However, when we recognize some change and understand we need to consider this concepts and perception as the starting point so to discover it. Because we want to know what time is and what relation it has with motion (Aristotle, 2013, part, 218 b21).

Aristotle maintains if we do not have any sensual perceptions, we also find motion and transformation inside ourselves and we assume time to have elapsed. In addition to this, we understand motion lapsing as concurrent with time lapsed. In other words, we will recognize in the first place that time and motion will have elapsed. Thus, time is either motion or something depending on motion. Since time is not motion, it has to be something else.

We understand time and motion together. Because even when we are not affected by means of the body, if any move occurs in the mind we will assume that time has lapsed. Also, when we think time has lapsed, it appears that some motion has occurred with it. Thus, time is either motion or something depending on motion. Since time is not motion, it has to be something else. However, it moves from one thing to the other (and in this motion) all the magnitude continues. Therefore, motion is accompanied by continuum and magnitude. Since magnitude continues, so does motion. Since motion continues, so does motion because, it is always perceived that time lapsed is synchronous with motion (Aristotle, 2013, part, 218 b21).

Aristotle's definition of Time

Aristotle considers time as in accordance with the before and after (pre and post), amount and number of motion. Therefore, time is countable and appears only through counting. Motion and change are divisible potentially. He also states the assumption of the before and after in place is due to the relative situation of the objects situated in place. However, since the before and after are assumed to be in the expanse of (objects) they need to be also assumed in motion because these two are matched together (Aristotle, 2013, 21 a 19).

The concept of before and after are related in the principle of place but these concepts could be applied regarding motion. Since, time is closely related with motion, the concepts of pre and post could be applied about time. Aristotle defines time as the number and amount of

motion and in accordance with the before and after. The Aristotle's definition indicates that time has a counting and numerical aspect. Besides, Aristotle highlights motion is a continued process. However, in this persistent process, one can distinguish stages. These stages are "Now". Therefore, we conduct an optional division regarding motion. Although motion is a continued process we then distinguish a series (hierarchy) of the stages of this process; stages known as "Now".

Since, motion is continued; dividing motion into a hierarchy of "Now" indicates an optional process which is dividable indefinitely. Time is something through which changes and transformation can be evaluated and counted and counting cannot exist without counting process units which change. Hence, Aristotle states that time measures stagnancy; because that thing which is stagnant could move. It is clear that time is secondary towards motion and change and involves transformations; i.e. there is no time without changes and transformation. Aristotle describes the "Current" time as the ultimate limit of the past and the future; a limit which is indivisible but distinguishes the past and the future. A question that arises is that is there time objectively or its existence results from a mental act which accounts for the amount of motion? Is time subjective?

Is time a phenomenon depending on mind or an independent phenomenon from mind?. Psychologically, we get surprised regarding time. Because, when asked about time and its discussion about it, we do not count the amount of motion. For instance, we know it is morning but we do not know how many years and days have elapsed (Bary, D. Smith, 2012).

2. CONCLUSIONS

In the beginning of chapter 10 of the fourth Physics book, Aristotle considers time as depending on mind. For him, the question that if there is no soul or mind, will there ever be time or not; this is a question that could be answered realistically because if there is no one to count, it cannot exist to be counted. However, Aristotle does not answer his own question fully and exactly rather he states that this question is based on the fact that is time conscious counting of motion. It is only capabilities of motion that can be counted by means of an existence which is conscious of time. However Aristotle has not answered many questions of time. Meanwhile, his perception of time as the amount of motion has left deep impacts on philosophers after himself specially ibn Sina.

Although can say that the definition by Aristotle of time is an effective definition, however time and its relation with eternity has remained a secret. Aristotle and others (particularly Leibnitz) have demonstrated that time cannot exist independent from events in which they occur. In addition to this, it is nothing but an atom for Aristotle, because time can be divided like a line until the indefinite. However, the geometrical properties of time create problems for clearly understanding the Aristotle's theory regarding time.

1. How are three times of the present, the past and the future related?
2. How can a series of "Nows" which are late and see no continuation create a time which is late?
3. How is it possible to go through the "Nows". In other words, how are a "Now" finished and the other "Now" is started. It is noteworthy, Aristotle attempts to solve this problem and considers the "Now" from a geometrical point of view.

References

- [1] Aristotle, (2000). Natural hearing (Physics), TR. Mohamd Hasan Lotfi, Tarhe No publication.
- [2] Aquinas Thomas, (1999). Commentary on Aristotle's Physics, Books III-VIII translated by Pierre H. Conway, O.P. College of St. Mary of the Springs, Columbus, Ohio 1958-1962 BOOK IV. Lecture 15.
- [3] Aristotle, Physics, (2013). Written 350 B.C.E, Translated by R. P. Hardie and R. K. Gaye The Internet Classics Archive Physics by Aristotle, part 10.
- [4] Barry D. Smith, (2012). Ancient Greek Philosophy, Lecture Aristotle, Cardinal University.
- [5] Coope Ursula, (2005). Time for Aristotle, Oxford University Press, Reviewed by Andrea Falcon, Concordia University

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