St. Augustine's *Confessions* vs. Aristotle's *Physics*: Two Rival Conceptions of Time in the History of Western Thought

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Abstract

This paper investigates the two competing ways to conceptualize time in the history of Western thought. There is one which is called phenomenological and the other which is called cosmological. Former is primarily grounded in St. Augustine's *Confessions* whereas the latter had its historical source in Aristotle's *Physics*. This investigation had its motivation in Paul Ricoeur's project of *Time and Narrative*. The main object of this investigation is three-fold. Firstly, it will be argued that neither of the two competing conceptions could be derived from the other. Secondly, none of these two can refute the other. Finally, they are not mutually exclusive, for both of them presume basic theses from one and another. During the pursuit of this threefold-object, it will be become amply clear that cosmological time is the time of nature and phenomenological time is the time of human world or human action. This will help achieve the purpose of this study which is also three-fold: to build an argument towards proposing a critique of human reason that claims autonomy over tradition as discourse, and develop a case against the distinction between natural and human sciences, i.e., social sciences, arts and humanities; inasmuch this distinction requires that there are two separate worlds, the world of man and the world of nature, or that one of them has superiority over other. No solution to the impasse or aporia of time will be proposed, and

correspondingly no solution to the problem of exact relationship between natural and human sciences will be recommended. But only an indication towards a possibility of such a solution will be made.

Key words: Cosmological Time; Phenomenological Time; St. Augustine; Aristotle; Paul Ricoeur;

1. Introduction

This investigation is primarily motivated from Ricoeur's hermeneutic phenomenology of time and narrative as expounded in his three volume work *Time and Narrative*. My intention in this paper is to explicate the aporia of time that Ricoeur's hermeneutic phenomenology aims to delineate by the name: phenomenological vs. cosmological.[1] Here phenomenology is spoken of not in some rigorous sense, as in Husserl, but as an investigation that primarily aims at something deeper by turning it into a phenomenon through identifying it by signs and expressions which intend it through lived-experience.[2] For instance, by phenomenology of time, one will be aiming at identifying signs and expressions of time which one identifies in lived-experiences which intend it with language as their medium of intention. Although cosmological account of time will be explicated later, but since phenomenological account of time will involve allusions to cosmological account of time, therefore, provisionally, cosmological account of time can be taken to be the conceptualizing of time as measure of change which is primarily the movement of bodies through space.

2. Augustine's Phenomenological Time

Augustine's phenomenological reflections upon time are primarily discussed in Book-XI of *Confessions*.[3] It starts with questioning about time with a sceptical twist. By asking, 'For what is time?' the questioning takes a phenomenological turn by claiming that 'If nobody asks me, I know: but if I

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[1] Cf. (Ricoeur, Time and Narrative-I, 1984, pp. 5-30) and (Ricoeur, Time and Narrative-III, 1988, pp. 11-22).
[2] Cf. (Zahavi, 2003) for an introduction to Husserlian phenomenology and his conception of lived experience.
[3] (Augustine, St. Augustine's Confessions-II, 1912, pp. 209-285).

were desirous to explain it to one that should ask me, plainly I know not'.[4] However, this phenomenological turn is not as rigorous as Husserl would later refine it and is threatened to fall into solipsism. But, solipsism is overcome by grounding the support in everyday linguistic articulations. For instance, Augustine appeals to pragmatic successfulness of the ability of ordinary language to talk about time, in particular, the temporal multiplicity in terms of present as 'passing away', past as 'were' and future as 'will be'.[5] This is juxtaposed with the sceptical argument against the very being of time which however finds its own support in the inability of referring to any such temporal multiplicity, for future as 'will be' is not yet, past as 'were' is simply not, and present as 'passing away' can't find any possibility of denotation since it has no extension. This sceptical argument is forced to oppose the ability of language to intend time. Pragmatic successfulness is not a solution to the sceptical argument but serves the purpose of overcoming solipsism and helps bring about the opposition between being (as asserted by language) and nonbeing (asserted by scepticism) of time. To this, we will name the first paradox or the paradox of being vs. nonbeing of time. One should note that Augustine is keeping the sceptical force and bringing language to bring about the oppositions not with the intention of refuting the sceptic but for directing the questioning further and further deeper into something beyond which either a solution or answer is obtained or one arrives at some deepest problematic at which this questioning may end.

Onto this initial paradox above, without refuting the sceptic, second paradox of measurement is grafted. So how can we measure time when it does not exist?[6] It is the logic of the use of the word *adhuc* (i.e. 'still' or 'yet') within ordinary language that creates this possibility of movement from the initial paradox of 'how can a being (time as spoken of in language) lacks being?" towards the second paradox of measurement of time.[7] The

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[4] (Augustine, St. Augustine's Confessions-II, 1912, pp. 238-239 (Book-XIV)).

[5] For instance, time can be spoken of in context of future as 'will be', present as 'passing away' and past as 'were', for which Augustine claims support from ordinary language as: 'And surely we understand it well enough, when we speak of it: we understand it also, when in speaking with another, we hear it named'. This when read in conjunction with the rest of the paragraph, establishes the support of the meaningfulness of such references in ordinary understanding (Ibid).

[6] The second paradox of time or the paradox of measurement of time.

[7] For instance, (Augustine, St. Augustine's Confessions-II, 1912, pp. 240ff, Book-XI (chapter XV)). On both occasions, temporal multiplicities are spoken of in terms of the *adhuc*, past as 'still/yet present', future as 'present yet to come'.

movement creates a possibility of making present a focus of mediation between the temporal modalities, since past is spoken of as 'still/yet (*adhuc*) present' and future as present that is yet (*adhuc*) to come.[8] Thus a confrontation between scepticism and the experience articulated in ordinary language confers present, a kind of primacy over past and future.

When such a confrontation is assisted by the phenomenology of the experience of time, it connects these linguistic articulations, e.g., the grammar of '*adhuc*', with temporal modalities through the corresponding lived-experiences. In comparison with Augustine, one can find at least four examples of signs with the help of which time '*shows*' itself phenomenological. These four signs are the experience of sound: (a) that is resonating, (b) that has resonated and (c) two sounds that resonate one after another and (d) an act of reciting a psalm,[9] such that the intention is establish by language (and not at all by some psychological process, for it would then not be phenomenology but psychologism) attested by the logic of the use of the words which accompany such experiences in ordinary language.[10] One such word has already been identified as 'adhuc,'[11] the other ones that Ricoeur identifies in elaborating Augustine are '*transire*' (passing away) and its linguistic referring affinitive '*praetereuntia*' ([it] passes) which appear among a collage of further linguistic referring affinitives.[12] As far as the latter pair is concerned, the logic of its use encodes the ability of language to talk about the possibility of lengthening and shortening of time, i.e. they constitute the sense of measurement of time within language. This may help us solve the riddle of measuring something that has no extension, for it is in language where lies the meaning of measuring times intended by the logic of the use of the word 'passing away' (*transire*). However, Augustine laments that such an investigation of making sense of measuring something that has no extension involves the repository of words which puts this extension, although figuratively, either in space or in durations.[13] But granting the sceptical argument and the arguments that refute the cosmological

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[8] Ibid.

[9] This is an extended case of (c) which also incorporates both (a) and (b). Thus I have decided to discuss (c) and (d) only.

[10] Ibid Book XI chapter XXVII, (Ricoeur, Time and Narrative-I, 1984, pp. 16-17).

[11] Ibid. pp. 269ff, chapter XVII.

[12] (Ricoeur, Time and Narrative-I, 1984, p. 13).

[13] Ibid.

conception of time[14] as measurement of change, such a thing is impossible.[15] However, since Augustine's phenomenological convictions commit him not to succumb to critical thinking of sceptical kind against ordinary language, thus he declares that time is still an extension of '*something*'. It is here he proposes a radical proposal. *Time, may be, is the extension of mind.*[16]

Phenomenological investigation of lived-experience of time that ordinary language intends via its corresponding repository of words and their logic has already established the primacy of present with the key representation as 'passing away'. This, coupled with sceptical argument, shows that *present is not at all a point-like instant* (something that was also a target of Augustine's refutations of cosmological conception of time). *It is thickened to contain already, past as what was 'still present', and future as what is 'present still to come'.* As far as our investigation goes, it appears that it is this phenomenon of threefold-present[17] that only apparently solves but actually deepens the first paradox of time. It apparently solves the first paradox (the being vs. nonbeing of time) by identifying the meaning of time as the threefold-present in the ability of language to articulate lived-experience. Thus time can be spoken of, along with its modalities as a kind of extended[18] threefold-present. But since granting the sceptical argument, one had already admitted that time has no extension and that the logic of 'passing-away' let unwanted figurative aspects slip from language to the possibility of making sense of measuring time, and furthermore that the logic of passing-away already correlated with the logic of *adhuc* that helped derive the threefold present; all this finally amount to that although

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[14] Any account of time can be called cosmological as long as it tries to ground its explanation in the phenomenon of movement to the extent that this phenomenon of movement is presumed to be the most primordial principle to explain 'nature' or 'physics'. Aristotle's argument to found time in such a principle is here considered to be the model example of cosmological thinking.

[15] Again, Augustine could have declared the capacity of language to be illusive and sided with the skeptical argument, but instead he goes on to ask help from God to guide him (Augustine, St. Augustine's Confessions-II, 1912, p. 257ff (chapter xxii)), implying that it is the opposition between language and critical thinking of philosophical kind that he expects to be productive. As for the rejection of cosmological notion of time, Augustine gave four arguments to refute it (see ibid chapter XXIII for detail of these four arguments).

[16] (Augustine, St. Augustine's Confessions-II, 1912, p. 269 Book XI (chapter XXVI)).

[17] i.e. present-of-the-past, present-of-the-present and present-of-the-future.

[18] The exact nature of this extension will become clear shortly.

threefold-present and the extension of time are correlatively meaningful and are the key in resolving the corresponding paradoxes, but their linguistic articulation is yet to be clarified. It might appear that the effort with the logic of 'passing-away' was not worth an effort, since we didn't get anything out of it. But that's not quite right. It was necessary, for it was its initial failure in clarifying that allowed to exhaust our expectations from spatial and linguistic figures of change which were letting our phenomenological account bear the burden of cosmological time as a tacit presupposition. Since it is in this latter case that we would be cloaking our presupposition about time as measure of change within our investigation if we allow passing-away itself intending or is to be intended by other words which figuratively or metaphorically allowed the movement or change through space (or from being potential towards being real) within language.[19] But a further phenomenological investigation of the experience of time remedies this initial failure and explores further the logic of 'passing-away' by the four examples that Augustine presents, thereby showing that it still holds the key in responding the second paradox of time and connecting it with the threefold-present (the solution to the first paradox).[20]

Coming back to the four examples, the cases (a), (b) and (c) of sound resonating and (d) of recitation, for Augustine, according to Ricoeur, it is the case of (c) and (d) which are the models of what phenomenological explication involves. It is in these examples culminating in the fourth one, that the logic of present as 'passing-away' gives rise to 'present-intention' (*praesens inentio*)[21] making threefold-present as the corresponding temporal threefold-intensions, the present-of-the-past as 'retention' or 'memory', the

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[19] We will see later, as Ricoeur would argue, Augustine's phenomenological investigation could never purified itself from what it wanted to dissociate in the very first place. These figurative or metaphorical aspects of language implicitly smuggled some of the presuppositions of cosmological conception of time.

[20] See (Ricoeur, Time and Narrative-I, 1984, p. 16ff), I am omitting the detail of example (a) and (b). Ricoeur interprets them along with how they relate with the logic of 'passing-away'.

[21] Ricoeur here translates the exact phrase '*praesens intentio*' as present-intention, William watts on the other hand translates it as 'present-attention', this shifting of emphasis may seem a minor change but is permissible only by an admission to an overall primacy of the present, since attention is what would mentally characterize present and it will be its distention that would trail off the retention of past as still-present and expectation of future as present-yet-to-come. See (Augustine, St. Augustine's Confessions-II, 1912, pp. 274-275, Book-XI (chapter XXVII)) or (Ricoeur, Time and Narrative-I, 1984, p. 17).

present-of-the-present as 'attention' and the present-of-the-future as 'expectation', to the extent that these intentional states are not to succeed one another in isolation like the beads in a rosary. The exact nature of this is explicated in the following elaboration of the example (c) and (d). Thus threefold-present, apparently, does not only solve the first paradox but also points towards the possibility of explication of time as the extension in the sense of distension or stretching of the soul. The latter would be termed *distentio animi* (stretching or distension) by Augustine. By pointing towards making sense of time as distension of the soul, mediation towards solving the second paradox would be facilitated by the identification of the three intentional states that corresponds to the threefold-present. In order to explain all this, I present a detailed explication of Ricoeur scrupulous examination of Augustine's third and fourth examples.

2.1. Augustine's Third Example: two sounds resonating one after another (case (c))[22]

This example consists of reciting a verse by heart from a hymn by St. Ambrose. It involves a total of eight syllables which alternate between short and long (short: first, third, fifth and seventh, which correspondingly alternate with the long ones up till the eight). While 'passing-away' through every alternation, what one measures is neither the movement in relation to number[23] nor the 'passing-away' itself[24] but what is 'retained/remained' (*manet* to remain), for it is in passing through such an alternation of short and long syllables, the longer is caught (in attention) to be long (in fact double of short preceding one) only because within this attending the shorter preceding one had the reciter direct or intend lengthening of the longer which can't happen unless the preceding one was already retained within the very attending of the present longer one. But this is not the whole story, for the longer one is not simply constituted by differing from the preceding shorter one, but also by differing (in this example at least) from up-coming or the shorter syllable still-to-come to the extent that this latter 'expectation' is part of the rhythmic individuation of

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[22] The detail of this one of Augustine's example is to be found in (Augustine, St. Augustine's Confessions-II, 1912, pp. 269ff Book-XI, chapter XXVII-XXVIII), and Ricoeur's explication in (Ricoeur, Time and Narrative-I, 1984, p. 17 ff).

[23] The Aristotelian conception of time or cosmological time.

[24] Though it still remains our phenomenological formal indicator towards what is actually measured (see section 3.1 for a detail of formal indicator).

the presently attended longer syllable. However, Augustine does not bring about the more active part of expectation-memory-attention in this example. It will become more evident in the fourth example.

Thus, what one measures is not the 'passing-away', not even the syllables, for they are to be found as past and future things only which, granting the sceptical argument, may not exist. But what 'remains' or is 'retained', and in similar manner what is 'expected. But what is that is retained and what is that is expected? What one finds in mind or soul as the object of such a retention is the impression-image, and correspondingly what Ricoeur calls sign-image as the object of 'expectation'. So what we measure is the impression as a modification of the soul. There now appears a slight tilt towards the primacy of the logic of the use of the verb 'to remain' (*manet*) instead of 'to pass' (*transire*) which Ricoeur rightly identifies. Thus we are directed to our own soul when we try to solve the second paradox from a proposed solution to the first paradox.

Besides, the mind has been identified as performing three fundamental operations, retention, attention and expectation such that these operations are in the soul to the extent that retaining is performed by impression-images; expectation is performed by sign-images. What remains of attention? By a key remark around the end of chapter xxvii, caught by the word '*traicit*',[25] present as attending is identified to be as the primary differential or principle of distinction between impression-image and sign-image. So the present to which corresponds the intentional state of attention, absolutely lacks any extension. Its existence is only phenomenologically demonstrated as that which persists by virtue of which that 'which is to be passes towards the state in which it is to be no more'. Thus threefold-present is accounted as threefold-intension, however, with an emphasis not on the *intention*—intending as the more active side of the mind—but on the impression as what remains, as a more passive side.

2.2. Augustine's Fourth Example: the recitation of a psalm

This example not only extends the third one already discussed, although with some shifts over emphasis, but also incorporates the first and the second example. If we briefly go through major themes within this

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[25] Which Ricoeur translates as 'relegating' and William Watts as 'conveys over'.

example,[26] we find that as soon as one goes on to recite a psalm, it is 'the whole of it' that is intended by the intention of expectation. As one moves along reciting, the act (*actionis*) of reciting turns the range of expectation is 'relegated/conveyed over' to what remains as memory (the recent retention). Thus the 'attention' is the very principle possibility of dialectics or tension between 'expectation' and memory, as the vanishing of the 'whole of it' into the province of memory. The most important part of this story is that this phenomenological description of the experience of reciting psalm is claimed to be a model example for the whole of life, including every human action, whether individual, collective or cultural.

First of all, it may apparently imply that the theme of impression-image and sign-image has been disposed of totally from this example. However, a closer look at what expectation and retention are directed at shows, the sign-image is the very modification of human soul that corresponds to the shortening of expectation and the impression-image to what lengthens memory. It is here that we see the tension between passivity and spontaneity that is the mark of *distentio animi*. The intentional side (dominating this example) reflects the activity to which corresponds the passivity of modification of soul as the formation of images. This tension is what is accounted as the stretching of soul (*distentio animi*). The origin of this stretching or distension is the very activity of the intending of mind through the threefold-intentionality (*intentio*). In this way, the third example investigates with a tilt towards more of passive side with an emphasis on the passivity of impression to which sign-image was a phenomenological correlate. On the other hand, the fourth example tilts towards more on an active (*affectio*) side with an emphasis on the activity of threefold-intentionality. In the previous case, present was identified as passing-away that gave way to what remains. In this fourth example, the present as attention can be identified as what 'divides' (*distenditur*) into looking back to the part that has already been recited and looking forward to what is 'yet' to be recited, thus giving way to the distension of the soul. Thus *distentio animi* is the very tension between the active and the passive, which the activity of threefold-intention (*intentio*) tries to actively overcome. But the more it tries to overcome the tension, the more

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[26] See (Augustine, St. Augustine's Confessions-II, 1912, p. 277ff (chapter XXVIII)) for detail, and see (Ricoeur, Time and Narrative-I, 1984, p. 20ff) for Ricoeur's elaboration of it. As Ricoeur has called this the crown jewel of Book-XI.

stretching or distension results. Ricoeur called this the theme of discordance that wins over concordance, theme of anguish of trying to make sense out of undifferentiated particularities of existence winning over the theoretic soothing of an ordered world.

2.3. Critique of Augustan's Phenomenology of Time

Finally, we may conclude that it is here our phenomenological derivation of the most profound or primordial principle that is dialectically constitutive of time finds its end. It is the *distentio animi* that is constitutive of the extension of time as a final solution sought to answer the second paradox of time such that it is the dialectical opposite of the *intentio* phenomenologically described as the activity of the threefold-intention which was the fulfilment of the threefold-present as a kind of phenomenological formal indicator which itself was the solution to the first paradox of time. If this derivation is not corrupted by any cosmological presupposition, then we can securely claim that Augustine's phenomenological investigation of time has successfully and sufficiently explicated the phenomenon of time. Unfortunately, as Ricoeur has rightly identified, Augustine's phenomenological analysis has let the hidden metaphorical configurations within the language he used remain both concealed and be burdened with cosmological underpinnings that only a hermeneutic reading can pin down. One key metaphor laden with such cosmological presumptions is the logic of use of the word 'passing-away' (*transire*) or 'to-pass'. It forces Augustine's phenomenology be laden with tacit meaning of traversing through space and thus time can't adequately become human-time that was sought, for such (metaphorical) figurative configurations would always tacitly parcel time as an attribute or modification of change in relation to number. It is this metaphor that Ricoeur called a *living-metaphor*, for it can't be surpassed and is yet able to help re-describe reality[27] which otherwise can't be intended in a sedimented normal discourse.[28] In other words, it is hopeless to expect from pure phenomenology to surpass such concealment since no pure phenomenology can sufficiently account the solution to the paradoxes of

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[27] Cf. (Ricoeur, The Rule of Metaphor, 2003, p. 282) for metaphorical reference as re-description of reality.
[28] An example of such a sedimented discourse would be one of traditional or dominant ways of philosophical reflections, e.g. Aristotle's Physics that establishes the model presentation of cosmological conceptualizing of time.

time, for such a pure phenomenology always tries to explicate from the reference point of mind alone. The concealment is already there in language and the linguistic intendings are never so transparent and trustworthy which can lend themselves to a presuppositionless vantage point that is always very dare to a pure phenomenology. It is this reason why one is compelled to take a hermeneutic turn supported by the poetics (and rhetoric) of most profound systematic (and unsystematic) ways of figurative configurations in language which refigures not only available resources of language to configure experience (of time) but by this refiguring, actually refigures the very phenomenon that showed in experience (the time itself) and was noetically constituted by the corresponding resourcefulness of language within particular systematic ways of figurative configurations.[29] Ricoeur explicitly spoke of such a noetic constitution in context of historical intentionality.[30]

Thus, Augustine's phenomenology is both a failure and a significant progress. It fails in discovering the fundamental constitutive principle of time from which one could derive the ordinary understanding of time as expressed in the movement of stars and heavenly bodies marking hours, days and years as the units of measurements through the instruments of clock and calendar, for psychological side of Augustine's phenomenological analysis is unable to derive the successive durations from impression-images for there seem to be no way to compare these impression-images which 'remain' in mind without falling into the pitfall of infinite regress. Instead it falls back on pragmatic successfulness of linguistic ability to refer time in utterances without sufficiently accounting the cosmological presumptions.[31] However, it is also a significant progress, for a failure to find in the dialectics of *distentio animi* and *intention*, a principle of constitution of time, and along with it the failure of *distentio animi* being considered as the constitutive of extension of time, Augustine brought to the fore two correlated phenomena as its corresponding major discovery. First, the theme of discordance-

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[29] For example, Aristotle's classic distinction of mimesis as dramatic enactment vs. diegesis as narrative, something that Ricoeur would invert to incorporate dramatic enactment as part of narrative emplotment (*muthos*) as an all-encompassing category which will correlate with mimesis as representation of human action.

[30] (Ricoeur, Time and Narrative-I, 1984, p. 180).

[31] (Ricoeur, Time and Narrative-III, 1988, pp. 13-14).

concordance[32] in correlation with the dialectics of *distentio animi* and *intentio* in which it is the discordance (the anguish or suffering) that continuously struggle in winning over the corresponding concordance. The latter amounts to psychological comfort that accompanies the reflective or theoretic achievements of *intentio* in the form of theology in particular and any science in general.[33] This makes us realize the limits of phenomenological speculation on time to the extent that phenomenology advances in the direction of radical inquiry at the price of deepening the aporetics itself. Secondly, this discovery, i.e., the theme of discordance-concordance that reciprocally results in the limit of phenomenological reflection, correlates with the possibility of engaging with the profound presumptions of cosmological time which were either not presumed properly which this phenomenology tried to overcome in the name of more reliable source of constitution of time, or illicitly allowed to slip through its own linguistic articulation. It is a progress as a whole since it is helpful in understanding the problem by deepening it. It is this that compels us to reconsider the cosmological time with the intention that we may find in it the dialectically opposite of phenomenological time which requires that it be considered not with the intention to be overcome or refuted as being inauthentic or illusive, but as being equally necessary, for what is ultimately required is neither cosmological nor just phenomenological but a dialectical mediation through which this first aporia is to be healed.

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[32] Ricoeur's preferred phrases are 'discordant-concordance' and 'concordant-discordance'. Former refers to a theme of understanding that is primarily a concordance and includes discordance within its concordance, whereas latter corresponds to the moment of anguish in the perplexity of being able to understand and make sense.

[33] The exact account of this nature of concordance i.e. as a reflective or theoretic soothing, is not explicitly worked out as such. However, it is not difficult to reconstruct the supposed argument. It is this that will be the main focus of Husserl's phenomenology. Husserl's phenomenology, both in its pre-transcendental and later in its transcendental mode is the explication of this concordance. But as I will discuss, and as Ricoeur also argues, the price of this theme of concordance is heavy. It further deepens the discordance, for Husserl's transcendental phenomenological reflections on the constitution of time, as worked out in *On the Phenomenology of Consciousness of Internal-Time*, results in producing more aporetics of time when it tries to work out the principle of constitution as the absolute flux (Ricoeur, Time and Narrative-III, 1988, pp. 39-44).

3. The Cosmological Time

Any account of time can be called cosmological as long as it tries to ground its explanation in the phenomenon of movement to the extent that this phenomenon of movement is presumed to be the most primordial principle to explain 'nature' or 'physics'. Aristotle's argument to found time in such a principle is here considered to be the model example of cosmological thinking. According to Ricoeur, Augustine's mistake isn't just his dependence on phenomenology, but also the reason that compelled him to take the phenomenological route instead of following the model example of philosophical reflection characterized by Aristotle. For according to Augustine, the question of measurement of time in context of '*how much time is needed*' for a body to move in space from a point to another, which for him is the elementary observation to point towards cosmological notion of time, can't be replied in terms of any explanation or argument that makes use of the very idea of movement.[34] This was one of the reasons why he thought that any explanation that could account for the existence of time as we find both in scientific and ordinary understanding requires a principle beyond physical or cosmological movement. Since movement (or change equivalently) was accorded a primacy over time in the very conceptualizing of nature by Aristotle, thus the whole cosmological conception of time becomes problematic once it is equated with movement. But here, as Ricoeur rightly identifies, Augustine has not refuted cosmological time but its weak thesis: 'time is the movement (of a body)'. The actual thesis that time is the measure of change (or movement) according to number is not even properly addressed here, for Aristotle would very easily allow such a refutation, since for him time *involves* movement intrinsically but it *doesn't just involve* movement. Aristotle's argument can be traced in three stages.[35] First stage involves showing that time cannot be thought without movement, although it is still not equal to

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[34] For in that case the explanation would become circular.

[35] Almost all reference from Aristotle's Physics is being referred from (Aristotle, Physics, 1991) which is part of the complete compilation of all of Aristotle's works (Aristotle, The Complete Works of Aristotle, 1991). These stages of the argument leading to the main thesis of Aristotle's cosmological time as its final conclusion are primarily coming from Book-IV. All the rest of the detailed references will be made in accordance with the Becker numbers from this reference.

movement.[36] In the second stage, it is claimed that since no movement can be made sense without the relationship of 'before' and 'after' thus this stage culminates in the dependence of time upon movement as: time depends upon movement to the extent that this dependence involves the relation of 'before' and 'after.'[37] But these relations involve magnitude or number since it's always accompanied by 'how much'. The third stage then capitalizes on this to finally yield the conclusion as time is: 'the number of motion in respect of 'before' and 'after.'[38]

What one realizes is that this development of dependence of time on movement does not involve subjective indispensability, for the relations 'before' and 'after' are not the linguistic intending of signs or expressions of time as lived-through. Aristotle explicitly declares their distinction as what "holds primarily, then, in place"[39] and thus not in someone's particular lived-experience. It is primarily this that posits the cosmological account right opposite of phenomenological account without, at least apparently, any possibility of mediation. But the real situation is far more complicated, for the there is no strong disjunction: 'either phenomenology or cosmology'; and thus there are prospect of mediation.

3.1. Critique of Aristotle's Cosmological Account of Time

Since all argumentative support for time's dependence on movement, in particular regarding the relation of 'before' and 'after', involves references to mind's ability to perceive, discriminate and compare, it is not logically redundant to ask what role soul has in the existence of time. Can we not ask if soul did not exist, time may not exist as well? Aristotle himself allows the viability of such a question.[40] In passages from chapter 13 Book-IV, Aristotle comes very close to question the meanings that the repository of language seems to offer when it intends time by asking how things are spoken of 'to be in time' or 'are in time.'[41] In this, Ricoeur finds an echo of archaism which was also reflected in philosophical reflections of antiquity, where time was claimed to be not produced by us but 'surrounded us' or

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[36] Ibid (219a2).

[37] Ibid (219a15-18).

[38] Ibid (219b-2).

[39] Ibid (219a14).

[40] Ibid (223a21-22), it reads, "if the soul did not exist time would exist or not is a question that may fairly be asked".

[41] Ibid (220b32-222a9) and (222b16-223a15) respectively for 'to be in time' and 'are in time'.

'enveloped us' in the form of alteration, generation and corruption.[42] Here, in referring through such a repository, it is lived time that implicitly gets referred and thus the relations of 'before' and 'after' come to acquire connotations of noetic type.[43]

It may be objected that the primary motivation to refer this repository is not lived-experience, but ordinary understanding historically articulated in natural language. But, the question of genesis of such an archaism is still what compels us to perform the exegesis of this ordinary usage back to an originary lived-experience that this archaism first came to intend. For what would otherwise be the source of this if it is to be meaningful? Of course, it is not being claimed that each and every historical genesis of a particular use of a word can be pinned down to a first originary lived-experience of a particular person at particular time in past to the extent that it is this person's particular experience that solves the problem of genesis and the corresponding meaning or reference. Although I have already discussed that phenomenology of 'X' aims at turning 'X' into a phenomenon by working out the essential ways 'X' can be intended. Without recourse to Husserl's systematic phenomenology, which is not the topic of our research, it is still the essential ways that 'X' is intended addressed by signs

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[42] (Ricoeur, Time and Narrative-III, 1988, p. 17).

[43] Besides the objection that follows in the text above, one may object here that recourse to Husserlian phenomenological language here shouldn't be allowed. First of all, as far as historical accuracy is concerned, indeed any usage of Husserlian phenomenological language in explicating Augustine's phenomenological reflections can't be brought for it may blur the actual intentions of Augustine. But, it is not historical authenticity that we are primarily after. In fact, such a longing for historical accuracy for 'actual authorial intention' will be shown by Ricoeur to be highly dubious when all historical investigation would be found to be involving a hermeneutic moment governed by the dialectics of 'Same' and the 'Other' through the mediation of 'Analogous'. For a brief reference that can suffice here in Ricoeur's account, see (Ricoeur, Time and Narrative-III, 1988, pp. 144-156). Ricoeur himself used Husserlian vocabulary to compare Augustine's phenomenological reflections with Aristotle; for instance while comparing Aristotle with Augustine, he spoke of 'noetic determinations' and 'noetic activity of the soul' which were ignored by Aristotle although they were implicitly present in the development of the argument in favor of his cosmological conclusion (Ricoeur, Time and Narrative-III, 1988, p. 16). Here, Husserlian vocabulary is not being used with the intention that it is something valid and the rest have to be analyzed under its scope. No not at all! Here, Husserl's vocabulary is just being tossed in to make the confrontation between Augustine and Aristotle more sharp and illuminating so that phenomenological presumptions of Augustinian type (that may ultimately lead to Heideggerian type via the interpretive mediation of Husserl) which are implicit in Aristotelian account are brought to the fore.

and expressions through lived-experience. But whose lived-experience are we talking about? Should it be the phenomenologist's or anyone who may be considered as a historically registered character who exhibited such an intending in some particular linguistic articulation? For a pure phenomenologist who would misread Husserl with the eyes of Cartesian egocentrism, it is the phenomenologist's lived-experience. This is precisely the psychologism that Husserl so fiercely fought even as early as his *Logical Investigation*. However, a more elaborate account that Husserl laid down for the genetic method shows that a historical anonymity has to be presumed to account for the genesis of meaning. There are no absolute starting points at an individual level, though sometimes apparently that may be the case when one encounters an artistic creative innovation. But even such apparently novel precedents are still not absolutely rule-independent.[44] Thus, genetic method would reveal that any historical registration that can be traced to exhibit this archaism in any system of linguistic articulation[45] should be accounted backwards into the historical genesis of the same system. As far as that particular archaism inherited by Aristotle is concerned, Ricoeur identified this historical registration within philosophical reflections of Anaximander from classical antiquity.[46] Here, since lived-experience is never alien to its (possible) linguistic intending, thus we are still referring to a lived-experience, however anonymously, registered through history with the name Anaximander.

Thus, we come back to the linguistic intending through linguistic articulations of experience of time, which in this case is exhibited by the logic of the use of the word 'to be in time' or 'are in time' as spoken of in ordinary language's repository to refer time, which Aristotle wrestles to incorporate, rather tame through his cosmological analysis so that it become sensible within his cosmological thesis. The theme of archaism comes back cloaked within philosophical analysis when the questioning of containment of time brings back the same old enigma in a different guise. What is time is restated and reinvestigated in terms of time as spoken of in the sense of 'waste',

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[44] Ricoeur spoke of contemporary novels' tendency to distance themselves from traditional precedents of narrativizing which individuates them to be creative innovations in their own right still involves rule-governess at each and every scale corresponding to which they exhibit deviation; at the level of individual work or composition, at the level of genre etc. (Ricoeur, Time and Narrative-I, 1984, pp. 69-70).

[45] For instance, literature, philosophy, religious exegesis, etc.

[46] (Ricoeur, Time and Narrative-III, 1988, p. 17).

'lapse', 'decay', and time that simply passes-away.[47] Hence, Aristotle's cosmological account implicitly parcels phenomenological presumptions about intentional or noetic determinations and noetic activity of the soul, just like Augustine's phenomenological account involved tacitly slipping of cosmological presumptions about successions of durations immanent in impressions-images, and in the metaphorical aspects which sheer phenomenology was unable to scrutinize when it made use of the ability of language to intend as if such an ability was transparent and trustworthy.

4. Impossibility of Total Derivation

I have neither completed my derivation of first aporia of time nor have I stated the first aporia as such. However, this point I have reached is a major level in the derivation. For once we realize that phenomenology's attempt to constitute human-time from mind (or distension of soul in case of Augustine) neither can exclude the autonomy of physical-time from human as expounded by cosmological account (thus can't derive physical-time), nor can the human-time be derived from physical-time; which is also the case with physical-time once we exchange its placement with human-time in the above neither-nor statement; we can hope to make progress towards what is really at stake. Provisionally, this can be taken as our guiding-statement of the first aporia of time which Ricoeur titled as 'phenomenological vs. cosmological. Or more simply, it means: *human-time as expounded by phenomenology is neither derivable from physical-time as expounded by cosmological account nor can it derive physical-time, yet both stand in a dialectical opposition to the extent that they also can't mutually exclude each other.*[48]

From what I have discussed above in explicating Ricoeur's hermeneutic confrontation between Augustine and Aristotle, it shows that both phenomenological and cosmological accounts attempt to ground time in some first explicanan which involve presumptions from the other. So thus

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[47] (Aristotle, Physics, 1991), (221a31-32), (221b1-2) respectively. For time that simply passes away, see (222b16-20) where Pythagorean Paron is spoken of saying that in time 'we also forget'. This forgetting amounts to the time that simply passes away.

[48] By human-time I mean the time that phenomenology (Augustinian here and later Husserl's) seeks to found constituted in soul or mind, whereas physical-time corresponds to the time that cosmological account actually takes to be grounded in the movement of celestial bodies through space.

far only the impossibility of their mutual exclusion is established. But this doesn't mean that one of them can be found to be dominating or any one of them can be subsumed under the other. It is now important to establish that none of them can be derived from the other, for it will then help make a major progress towards the genuine appreciation of the first aporia of time.

To argue the impossibility of deriving human-time from physical-time and conversely physical-time from human-time, it is important that we go back to Aristotelian account Book-IV and follow through the interconnected meanings of the terms 'instant' or 'now', 'body' and 'point' with regards to the relation 'before' and 'after' in cosmological analysis to work out the aspects of an unbridgeable gap that exists between the two accounts. Ricoeur identifies this unbridgeable gap to be existent between the Aristotelian 'instant' or 'now' and Augustinian 'present' as threefold-present and he elaborates this gap by confronting latter with the two paradoxes of the former.[49] Once this elaboration of gap facilitated by such a confrontation is complete, we would have established the impossibility of deriving any one of them from the other.

I present my explication, rather, derivation of Ricoeur's two paradoxes of Aristotelian 'instant' or 'now'[50] which in what follows I will call the paradoxes of unity and divisibility respectively. First of all, according to Ricoeur, Aristotle conceived an *instant* or '*now*' as long as it is thinkable, to be a 'cut' or 'break' that mind has the capacity to perform to disrupt the continuity of a movement as long as it is countable. One must note here that this way of conceptualizing doesn't make now-instant a mental

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[49] This is hallmark of Ricoeur's analysis. It is primarily aporetic. His scrupulous presentations are not mere summaries of what his predecessor has already said. They always involve interpretive confrontations in which the aim is to make things show by working out a dilemma or paradox that hitherto had gone unnoticed. These interpretive confrontations are sometimes internal to a particular text, for instance in case of his analysis of Aristotelian *muthos* which he inverts to work out his model of narrative emplotment which he claims to be a permissible reading or interpretation of Aristotle that does not do so much violence as to totally disrupt the meaningful coherence of text. I will elaborate it later when I will discuss how Ricoeur thinks that narrative can mediate the first aporia of time. Similarly, a confrontation can be external. This is exemplified in his confrontation of Kant with Husserl. It is one level up the same derivation of the first aporia of time which we have seen in Aristotle vs. Augustine.

[50] Ricoeur takes them to be synonymous (Ricoeur, Time and Narrative-III, 1988, p. 19ff). Jonathan Barnes' edited version which Ricoeur also used to cite didn't use the term instant, there the word is 'now', see (Aristotle, Physics, 1991, p. 68ff) (218a4-10) and onwards.

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phenomenon. It is conceived this way to the extent that it is *thinkable*. Its actual existence lies independent of any intention or distension of soul. This way, a 'now' or 'now-instant' both divides time and bounds it in intervals. It thus helps make sense of both the 'before' and 'after' to the extent that what lies beyond the cut is 'after' and similarly what precedes the cut is 'before' such that count ability, number or magnitude can then be considered as that very interval formed between the two now-instants. The account itself does not distinguish between any two now-instants in themselves. On the hand, we do distinguish between two now-instants, a now-instant of a moving body at a point A in space and a now-instant of the same body when it reaches a point B. This is a very subtle remark. For if we are unable to distinguish or equivalently unable to individuate two now-instants then the whole world would become unintelligible because movement itself, as the first principle cause of all natural phenomena, would become unintelligible. There will be no way to determine when something precedes something (or equivalently when something follows something) and thus no causal inference could ever be tangible. So what Aristotle has to offer? It seems that all he has to offer for now-instant is a kind of analogy with a 'body' as it is perceived during the motion, something that 'is carried along'[51] when it moves from a point A in space to a point B. But this turns now-instant more like a geometer's 'point' on a real Euclidean line.[52] Aristotle does in fact make this analogy as well in context of infinite divisibility of time's duration.[53] Aristotle's attempt to answer the question or the paradox of unity: How is it possible that ''now' in one sense is the same, in other it is not the same?'[54] merely shifts the focus by giving analogies without actually resolving. This now-instant is not heavy or thickened as Augustinian 'present'. Although it does seem to successfully

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[51] Ibid (219b13-34).

[52] Provided we allow rigid-motion which was allowed in Euclidean geometry without properly being accounted in the axiomatic structure. Off course, Aristotle was not aware of Euclidean geometry as such since that was quite a later phenomenon, but Aristotle's attempts, however unsuccessful, to handle proving what later came to be known as 'parallel postulate' shows ample evidence that he could be simultaneously thinking of both: line as a continuous linear collection of points or line as a continuous tracing of a moving point without realizing the subtle distinction that may exist between the two from a more modern perspective which would render former as a set theoretic phenomenon and later as topological and geometric.

[53] Ibid (220a27-31).

[54] Ibid (219b13-34).

respond to both paradoxes of time[55] that we encountered with Augustine, but leaves the very human phenomena of past, present and future unexplained. The unity of now-instant explained in terms of an analogy with a moving body leaves the existence or inexistence of previous now-instant unaddressed, especially in its connection with the very 'now' of 'now-instant'. The previous now-instant that is different from 'this' 'now-instant' leaves a possibility of infinite regress of 'now-s' of 'now-instant'. This infinite regress was resolved by the thickening of present in Augustine's threefold-present. But this can't be an option here since the now-instant is a point-like cut that does not contain anything besides itself. Thus now-instant of Aristotle is neither the present of Augustine and similarly nor it can ever explain the past as present-of-the-past and likewise future as present-of-the-future without falling into the viciousness of infinite regress. Aristotle's present is a sharp situated now-instant such that past and future are then explained in terms of 'before' and 'after' relations corresponding to the actual or potential movement of this situated now-instant. Thus no recourse to soul is allowed in the explanation of existence of time as an autonomous continuity along with magnitude and movement.

There is similarly another paradox of 'now-instant'. We have already seen that now-instant' possesses a unity as it moves through the continuum of time very similar to the unity of a mathematician's point on a geometric line. Just like a line as a continuum can be traced by a moving point and yet can be divided by it,[56] it likewise opens the corresponding possibility for now-instant. But how can we justify the paradoxical function of now-instant making time both continuous and yet be divisible?[57] Cosmological account, i.e. an account based on movement, used the analogy with movement of a body to account the paradox of unity, this time it makes use of the analogy with movement of point on a line. However, it also renders the possibility of a potential movement, for when there is no movement there is still time that passes very much like a line that continuously exists which is after all always potentially divisible by a particular stationary point. Thus potential motion helps make sense of divisibility out of

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[55] The paradox of being that has no being and the paradox of measurement.

[56] This model has a very close affinity with Dedekind cuts on real line (Bloch, 2011, p. 33ff), for a brief historical introduction to the contribution of Richard Dedekind and the sources from which a more detailed historical account can be reconstructed, cf. (Scriba & Schreiber, 2015, pp. 453-454, 503).

[57] Paradox of divisibility (Aristotle, Physics, 1991, pp. 71 (220a5-14)).

continuity in so far as it can be analogized with a continuous line being divisible by a stationary point. This apparently also solves the problem of causality by explaining how to account for the 'precedence' and the 'following' relations between any two now-instants. For if time was not divisible then such 'before-after' and correspondingly 'precedence-following' relations would also not make any sense. However, as opposition between divisibility and continuity is resolved with the help of analogy from both potential movement and a stationary point on a continuous line, *it simultaneously pays the price of neglecting the differences between two different senses of using points – as stationary or as a moving point – and the 'now-instant'*, thereby making the resolution questionable and the paradox even deeper than it first looked, *Either way, neither the moving point nor the stationary point, now-instant does not allow a possibility of deriving Augustinian threefold-present nor Augustinian threefold-present and correspondingly the distension of the soul could ever derive the now-instant that would make time autonomous, i.e., independent of human-time.*

5. Conclusion

Thus, we have a total impasse of philosophical reflections to account time. In some sense time becomes the barometer to gauge how much human theoretic reason can claim legislative autonomy in making sense of itself, the nature and humanity in general and historically in particular. Also, since there could be no possibility of determining any event in nature without a conception of natural time and in similar vein, every human event or action requires the concept of human time, therefore, natural sciences which study natural phenomena presume natural time and in similar vein every human science[58] presumes phenomenological time. It seems that human reason can, only apparently, claim such autonomy within natural science where cosmological time reigns and within human science where phenomenological time apparently reigns. But neither the historical human world is so simple that it could be dominated by phenomenological time nor is it so with natural world. This is attested by the fact that both phenomenological time (as the time of human soul) and cosmological time (as the time of nature) require each other to be validated.

[58] Throughout, human sciences is to be taken as an umbrella term for social sciences, arts and humanities.

This impasse already remarked above as: *human-time as expounded by phenomenology is neither derivable from natural-time as expounded by cosmological account nor can it derive natural-time, yet both stand in a dialectical opposition to the extent that they also can't mutually exclude each other*, reveals that the distinction that has been made between natural sciences and human sciences both at ontological and epistemological level is illegitimate. They are not two divorced realms which can't be bridged. On the other hand, since neither of the two perspectives can subsume one under the other thus neither natural sciences which claim authority over the realm of nature can dominate human sciences, nor human sciences which has similar authority claim over the realm of human has any priority over natural sciences.

Since we have reached these conclusions by tracing the aporia of time through a dialectical confrontation between the two perspectives on time, the phenomenological and cosmological, therefore it can safely be suggested that what solves this aporia of time would also solve the problem of relationship between natural and human sciences. This problem requires to be addressed for one very important reason. Human sciences are dominated by positivistic research methodologies which are paradigmatic for natural sciences. This shows that in research academia, human sciences have already been presumed to be epistemologically dominated by natural sciences and their research methodologies. This is like succumbing to subordinating human sciences to natural sciences. Our derivation of aporia shows that this is not justified; in fact it's a mistake at the deepest level of human reflection or reason.

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