

Temporality in Scientific Language and the Temporality of Historical Language

The scientific philosophy of evolutionary development forms a narrative-frame for thinking about the human position and relationship to universal processual dynamics. This narrative-frame is often structured temporally with a specific astrophysical singularity origin as the first cause in a continuous and progressive complexification of organization from sub-atomic particles to human civilization. In this processual dynamic key events are identified as representing punctuated discontinuous qualitative phase transitions where complex relations form emergent integrated wholes with properties that are more and/or different than the sum of their parts. Thus this scientifically legitimized thought form grounds a teleological, emergentist, and holistic philosophy temporally orienting human individuals towards the next stage of complex organization in cosmic evolutionary development. This next stage of evolutionary developmental imminence is often described as a universal technological singularity where complex organization is expected to form a globally emergent integrated event horizon beyond which the human mind will no longer comprehend or understand dynamic process. However, a potential complication with this form of philosophical analysis involves the fact that the “parts” involved in this future integration towards a more complex organization are irreducibly “subjective” and thus not only possess their own internal psycholinguistic temporality, but are also collectively responsible for the scientific construction of a universal temporality of physical processual dynamics via a priori interpretative narrative-frames (i.e. the subject is always-already the synthesizing agent of objective “big bang to global civilization” dynamic process). Thus, a few salient questions emerge in this analysis: how are scientists of humanity to understand a technological singularity futures horizon given the consequences of a multiplicity of psycholinguistically mediated internal temporal forms?; and how are philosophers of science to understand the dynamic processual nature of linguistically constituted scientific temporality of the universe in the context of historical temporality?

Cognitive networks constructed by the scientific mind have made incredible progress in understanding the natural world through tools of empirical observation and the methods of reduction and fragmentation. In these efforts reduction refers to the practice of understanding nature by isolating particular observable phenomena in nature and empirically analyzing its constituent parts (e.g. particles, molecules, organisms, etc.) (Heylighen 2014). The logic of reductionism has led to fragmentation of scientific analysis of nature into cognitive networks compartmentalized into fields and sub-fields and sub-sub-fields focusing on ever more specified parts within the wider whole (e.g. nature broken up into fields of physics, chemistry, biology, etc.) (Christian 2017). This dynamic process where tools of empirical observation become utilized through conceptual reduction and fragmentation is necessary for certain forms of understanding nature. For example, fields as diverse as string theory in particle physics (Polchinski 1998), or artificial intelligence in cognitive science (Russell & Norvig 1995), or genetic engineering in biology (Carr & Church 2009), could not exist without the tools of empirical observation becoming channeled through methods of reduction and fragmentation.

However, there is an emerging intellectual desire and social necessity in the philosophy of science and the sciences of humanity to understand the historical dialectic consequences of scientific conceptual reduction and fragmentation in relation to nature and humanity as a totality (Last 2017). In other words, considering that the networks constructed by the scientific mind have totally transformed the human conceptual position in nature as a whole through multiple “de-centerings” (i.e. cosmic in relationship to macro, micro reality; biological in relationship to the evolution of organic life forms; and cognitive in relationship to phenomenal un/sub-conscious and material-neuronal processes, etc.) (Weinert 2009); how are serious philosophical analyses in the 21st century to position the human futures horizon that faces a technological singularity driven by reductionist scientific networks? (Kaj & Yampolskiy 2017) Has philosophical analysis lost a central background/anchor to orient-guide human process or must analysis now negate any naive notions of singular centrality and affirm radical multiplicity? (Weinbaum 2015) Indeed, the eternal structural antagonism of the modern world could be located between understanding the consequences of science and reason for issues of human existence and meaning (Stewart 2010). How can philosophical analysis recover from this tense historical dialectical problematic where humans have lost all “limits and center”? (Sloterdijk 2011, p. 20-1)

Thus, considering that the cognitive networks of science represent the thought de-centering agent of historical dialectics how far can the most sophisticated narrative-frame of scientific philosophy aid us in reconstructing a human-nature relationship in its totality (i.e. a whole integrated view as opposed to a reductionist fragmented view)? The most sophisticated scientific philosophy that seeks to understand the totality of nature and its relationship to the human mind in contemporary thought is an evolutionary developmental view of the world (Heylighen 2011). In contrast to the approaches of reduction and fragmentation which isolate particular phenomena for analysis, the evolutionary developmental approaches focus on a holistic integration of phenomena in which the human-nature relation is analyzed as connected and related to one another in a continuous chain from the beginning of known temporal

processual dynamics to the present moment (Chaisson 2001). For example, instead of separating the world of physics which focuses on particle interactions and the world of chemistry which focuses on chemical interactions, a holistic and integrated view focuses on understanding the shared dynamic processes that connect the world of physics and the world of chemistry in an emergent multi-level hierarchal interaction that unfolds over time (or is itself conceived as cosmic temporality) (Smart 2008).

From first analysis this quest for an understanding of the totality of the human-nature relationship with a scientific philosophy of evolutionary development appears to be well equipped to narrate and frame a holistic and integrated view of temporal phenomena because it allows for an analysis of all material (physical) and/or ideal (virtual) entities as relational parts of general systemic organizations on various scales (Stewart 2014). This means that from the evolutionary developmental view the material or ideal status of the phenomena is less important than the changing relational organization or processual dynamics of the phenomena under question. For example, if analysis is to generalize evolutionary developmental thinking to the whole of nature this view can start to think of the ways in which the astrophysical singularity origin of the universe (symbolized as the “big bang”) and the emergence of a global civilization in the 21st century are not phenomena to be separated in conceptual analysis with one relegated to the domain of physical sciences and the other relegated to the domain of social sciences, but instead integrated in conceptual analysis as part of one and the same interconnected and continuous process of temporal cosmic dynamics.

The conceptual tool of *complexity* has proven the most general and useful for analysis of this interconnected and continuous process of temporal dynamics. Complexity can be defined as a measure of distinctions and connections within general system organizations from the lowest levels of physical order to the highest levels of social ideational order (Heylighen 2014). The use of complexity in analysis allows for the situation of a clear and unified narrative of phenomena where researchers can identify an increase complexity when there is an increase in differentiated distinctions and integrated connections that produce a qualitatively new systemic organization, like for example, in the transition between the earliest clouds of matter and the formation of the first stars; or in the transition between complex molecular chains and self-replicating proto-cells. The general trend in this complexity increase reveals a distinct arrow of time irreversibly working against the thermodynamic drift towards disorder with successive manifestation of levels of organization that are further and further away from thermal equilibrium in the physical, chemical, biological, and symbolic worlds (Lineweaver et al. 2013). Due to this fact complex organizations have been described as being driven by negentropic and teleodynamic “ordering forces” that are not fully understood as the phenomena characterized by these properties are inherently “incomplete” and “open to becoming” (Deacon 2011).

How does this complexity view that integrates conceptual analysis from the beginning of time to the present moment allow for alternative interpretation? To be specific, in this complexity view analysis can conceptualize the big bang as astrophysical singularity and global civilization that discovered the big bang astrophysical singularity simultaneously as the same

object because both phenomena are part of one-and-the-same interconnected chain of cause and effect driven by increases in complex phenomena. Thus, analysis can posit that the big bang was an ontologically necessary precondition for the existence of global civilization (i.e. with no universe there could have been no evolutionary development of human civilization), and global civilization was an epistemologically necessary precondition for the discovery of the big bang (i.e. with no human technology produced by global civilization there could have been no discovery of the big bang as event). Consequently, the astrophysical singularity can be thought together with the existence of beings-in-language thinking and communicating about the origin of the universe as astrophysical singularity (i.e. part of the same temporality connecting the lowest levels of sub-atomic order and the highest levels of social ideational order). In other words, this complexity analysis can think thought and being (observer and observed, idea and matter) simultaneously as thought emerged in being, and being is under the analysis of thought.

However, it is important to note that this general rise of complexity over the course of the past 13.7 billion years is not simply a smooth continuous one, but instead characterized by the existence of discontinuous and punctuated qualitative phase transitions or metasystem transitions that retroactively re-structure the nature of temporal processual dynamics on the highest levels of complexity (Aunger 2007). Common examples that represent these phase or metasystem transitions include the emergence of atoms, molecules, organisms, cognition, language, and society because these cosmic events totally change dynamic processes. In this retroactive restructuring analysis can note that the more complex the dynamic processes of the phenomena in question the more accelerated the general velocity of temporality (Smart 2008). In other words, process in the realm of physics are slower than process in the realm of chemistry and biology, and process in the realm of chemistry and biology are slower than process in the realm of thought/ideation. Furthermore, even within human history, process in the agricultural world is slower than process in the informational world, and so forth. This irreversible acceleration of temporal velocity could represent a reality that is capable of processing itself at higher and higher levels of resolution with the emergence of new domains of complex organization. Indeed, it is this general acceleration in the velocity of dynamic process that gives the appearance of a future horizon as technological singularity where dynamic process occur so quickly that the human mind can no longer comprehend dynamic process itself (Kurzweil 2005).

From the level of phenomenology these accelerated transitions open a new domain/horizon of reality which then acts as a new level for interaction and as a platform for the potential of future complexification to be determined by the highest level of the system under particular universal constraints unique to that level of reality. For example, with the emergence of cognitive linguistic agents from the realm of purely biological cognition (i.e. human beings as novel distinctions) reality was now structured by the formation of more complex social groups united by ideation (i.e. human societies as novel connections). This level of reality represented a new domain/horizon of being that stabilized a new regime of complexity in symbolic form and also functioned as a platform for the future emergence of even higher complexity with the formation of civilization (Last 2015). Throughout the history of civilization, in turn, complexifications in agricultural, industrial, and informational society have opened new horizons

that retroactively restructure temporal process in unpredictable ways (i.e. peoples in ancient agricultural organizations could not have predicted the nature of modern informational organizations which are stabilized by technologies that were mostly unimaginable before they emerged). In other words, the nature of higher transitions are impossible to predict in advance from the phenomenal vantage point of the lower historical level (i.e. nature's own potency as a totality exceeds the potency of any particular individual or particular social organization in temporality).

This exploration of the evolutionary developmental view demonstrates that the transition from forms of scientific knowledge that are reductionist and fragmented to forms of knowledge that are holistic and integrated has already begun. Indeed, to give a specific example, the big history community of researchers already represents a subject of study aiming for holistic understanding of the human-nature relation. Big historians have developed an analysis of cosmic temporality as an integrated and continuous dynamic process that undergoes periodic discontinuous and punctuated phase/meta-system transitions. In big history analysis can see the grounding of a grand unified narrative from "big bang to global civilization" as structured by "complexity thresholds" (Christian 2008). The dominant descriptions of these complexity thresholds have been grounded in either an informational base (universal complexity as best understood in algorithmic terms) (Baker 2013), or with an energetic base (universal complexity as best understood in thermodynamic terms) (Spier 2005). From this perspective the hypotheses of big historical analysis are related to the idea that energy flow directed-guided by increasingly sophisticated information processing mechanisms are critical dimensions of universal complexification and the generation of negentropic/teleodynamic forces.

Consequently, this info-energy flow dimension of four-dimensional dynamic process gives the impression of an intense localization/concentration of the spacetime manifold via the manifestation of complex organizational forms. This global evolutionary developmental phenomenon is strange to think in cosmological context where the universe at large appears dominated by simple organizations and void/vacuum. The most common demarcation of these information-energy complexity thresholds into a universal big history narrative includes the following distinctions (Christian et al. 2011):

- 1) origin of the universe
- 2) the first stars and galaxies
- 3) formation of chemical elements
- 4) formation of the Earth and solar system
- 5) emergence of life
- 6) emergence of humanity
- 7) transition to agriculture
- 8) modern industrial revolution

This scientifically legitimized narrative-frame forms a ground for a teleological, emergentist, and holistic philosophy that temporally orients human individuals in a cosmic

context towards the next stage of evolutionary development. How can this scientific philosophy emphasizing continuous and interconnected temporal dynamic focused on far from equilibrium complexity transitions be practically useful in its application towards understanding the processes of modern civilization? Does this view of the human-nature relation give analysis a background-anchor to help humanity regain limits and center, a possibility for closure and completion in eternity? Or does this view necessitate the affirmation of infinite multiplicity spiralling in open incompleteness for an eternity? Let us analyze the teleological, emergentist, and holistic dimensions one-by-one in order to derive some perspective on what an understanding of the totality of nature from the evolutionary developmental point of view can teach us about our present human position and relation to the future.

First, the narrative of rising complexity over cosmic time gives the impression that there is an overall direction (“teleology”) of the universe favouring the generation of increasing complexity (Stewart 2014). This complexity (as mentioned) can be measured relationally in terms of differentiated distinctions and integrated connections; in other words, complex organization can be measured in terms of the efficiency of coordination between disparate elements. In the context of past complexity transitions this tendency for more complex phenomena is not a pre-determined necessity but rather a latent potentiality to-be-determined/realized as a consequence of the interactions governing the highest level of the cosmic hierarchy. For example, throughout the multi-local 10,000 plus year transition from foraging communities to agricultural communities the specific sites/regions/populations that determined the transition (e.g., Mesopotamia, China, Mesoamerica, etc.) and the particular cultural forms that they assumed as necessary (e.g. Babylonian/Egyptian, Chinese, Aztec, etc.) were radically contingent openings dependent on a multiplicity of cultural and ecological factors that could not only not be determined in advance, but which could also have been actualized-realized otherwise (i.e. there was no “law of the agricultural revolution” stating where the transition had to occur or what cultural forms would be the architects of its manifestation). However, and at the same time, given the new attractor spaces opened up by the potentiality for agricultural communities (both in terms of differentiated distinctions of civilization labour and integrated connections of civilizational networks achieved through the efficiency of coordination between the disparate elements) there did exist a natural latent tendency or preference for such a level of complexity to emerge somewhere within the domain of human forager complexity, which would then, retroactively, overdetermine the course of lower levels of complexity (i.e. human foraging communities were gradually replaced over time by more complex agricultural communities to the point where there are no more human foraging communities left in existence today).

In this context the “cosmic teleology” of modern civilization may be towards increasingly diverse individuation (differentiated distinctions) expressing/realizing itself within mediums of ever-more interconnected global-digital platforms (integrated connections) that are designed to facilitate diverse individuation through efficiency of coordination mechanisms. Here the present moment gives analysis a radically dynamic actual case example of the process of global complexification that displays the paradoxical characteristics of being an open contingent potentiality with no pre-determined necessity (i.e. any realized necessity could have been

otherwise) but yet still displays general dimensions of new (historically unprecedented) attractor spaces that give the impression of a latent natural tendency or preference for the imminent universalization of this new level of complexity. For example, both in terms of the differentiated distinctions (diverse individuation) and integrated connections (interconnected global-digital platforms) the particular forms of diverse individuation and interconnected global-digital platforms are completely in an open state of “yet-to-be-determined/realized” as a consequence of the interactions governing the highest level. In other words, there is no cosmic necessity for the existence of any particular “individuated subject” (“empowered star” as “heavy-dense symbolic body”), and there is no cosmic necessity for the existence of any particular globally interconnected medium (*Google* or *Facebook* as social universe of individuated subjects, for example). However, there is perhaps a retroactively constituted necessity for the existence of individuated subjects as such, or for the existence of structures like global search engines and social networks as such, simply because any actualization-realization of a higher metasystem will depend on the efficient coordination of these phenomena. Consequently, the question in this analysis becomes something like “what are the long-term evolutionary developmental consequences of hyper-individuated subjects/agents interacting in global-digital mediums facilitating hyper-efficient coordination patterns?” The answer is “we do not know” because such phenomena represent patterns of higher levels of organization than we are able to understand given that such phenomena are highly dense symbolic entities capable of effecting a universal virtual sphere of interaction embodied by other highly dense symbolic entities. Analysis can simply state that there is an openness and incompleteness coupled with a clear telos for the actualization-realization of a “field of dense symbolic centers of global phenomenal attraction”.

Second, the narrative of rising complexity gives precedence to the fact that the universe can give rise to “emergent” qualitative phenomena simply by interacting/relating with itself in more complex ways. This should give the impression that as civilization becomes more complex it will become characterized by new features that not only do not exist in the present moment but that cannot be reduced to any existing phenomena. In other words, due to emergence phenomena can appear in the universe which change the rules/laws governing the fundamental nature of interaction (which is actually a salient ontological feature of law systems in civilizational processual dynamics). The interesting dimension of thought here is to think the fact that a constitutive feature of the universe’s temporal becoming has been the generation of phenomena that exist in the present but that would have been totally unthinkable at a previous stage of the universe’s evolutionary development. For example, when the universe was in its earliest and simplest state the only major forms included hot, dense, and undifferentiated fields of quark-gluon plasma. In retrospect we can observe and describe how new and more complex forms differentiated and integrated from this primordial plasma field of simple elements, but the future existence of solar systems, planets, oceans, organisms, and human civilization, for example, would have been impossible to predict in advance as they exist due to emergent rules/laws governing relational interactions that simply did not exist when the universe was in its earliest and simplest state. Furthermore, there is no evidence that the rules/laws of the emergent worlds can be reduced to/derived from the rules/laws of the micro-worlds that existed from the

beginning of temporal processual dynamics (i.e. the rules/laws governing the first moments of cosmic movement).

In this context the “emergence” of novel phenomena from the very interaction/relating of human civilization with itself is something that should not be under-estimated (Corning 2002). Considering that human civilization is the highest level of known cosmic complexity its processual dynamics are likely to produce future phenomena that are not only currently beyond the domain of our contemporary thought but also beyond the domain of all possible human thought. This is precisely the point of modern scientific philosophers who reflectively emphasize the potential for cognitive networks of scientific mind to produce phenomena like artificial intelligence, robotics, genetic engineering, high-energy particle colliders, and so forth and so on. In a world that plays host to the fully actualized-realized potency of such technologies the very rules/laws governing the relations between cognitive entities will be different. Furthermore, these specific technological developments are all examples of human symbolic abstractions (the epistemology of cognitive science, engineering, etc.) exerting a higher level of causal efficacy on the ontology of the world than ever before in human history (i.e. the retroactive emergence of higher levels of causation). In other words, previous modes of human symbolic abstractions (“knowledge”) have desired to create/contact super-intelligence, design life, modify their biological substrate, or play around with the fundamental constituents of matter; however, it is only with the development of 20th and 21st century science and technology that we are actually gaining the symbolic efficacy required to bring these desires into or closer to actual realization.

Third, the narrative of rising complexity emphasizes a “holistic” understanding where it is reflectively recognized that independent or isolated things (“discrete things”) may not actually exist independently of human conceptualization of independent or isolated things. Thus, from the holistic perspective, when Democritus grounded the philosophy of “atomism”, for example, the “atom” “in-itself” should not be thought of as an actual “discrete physical entity” at the universal ground of all being, but rather, should be thought mainly as a “discrete conceptual entity” in the minds of historical humans who separate nature into distinct parts in order to process dynamics that are more complex than our minds can comprehend. Thus, from the holistic view the continuity or waves between phenomena are emphasized over discrete or distinct phenomena which means that in order to truly understand the complexity of phenomena analysis has to understand how phenomena exist in and through their relationship to other things (Heylighen 2014).

In other words, the complexity narrative emphasizes that we aim to understand phenomena “as a whole” or “in totality” including spatial relations and their temporal dynamics (i.e. a particular individuated phenomena as produced by its connections and latent developmental potentiality). For example, and as mentioned, conventional scientific operations implicitly assume that we can understand the fundamental nature of reality by breaking it down into its most fundamental constituent elements (e.g. individuals, organisms, cells, atoms, sub-atomic particles, etc.). However, in each example the concept of “individual” or “organism” or

“cell” abstracts the notion of an independent object/thing from an overall understanding of the way in which an individual exists *in relation to a society*, or an organism *in relation to its ecosystem*, or a cell *in relationship to a cell-body*, and does not exist independently of these associations/relations (i.e. there is no individual without society, there is no organism without ecosystem, there is no cell without cell-body). Moreover, this relational view exists on multiple levels where an individual cannot be understood without relation to its lower-level cellular organization; and also the inverse, where a lower-level cellular organization cannot be understood independent of its relation to the higher order individual whose behaviour will effect its development.

In the context of “holistic” thinking one may think that conventional scientific analysis would become impossible or at least very difficult since clear discrete conceptualization is central for operationalizing scientific analysis. However, not attempting to think a scientifically informed philosophy that is capable of confronting “the object” of an interconnected continuous multi-level relation between thought and being would leave us without a truly global or cosmic perspective with which to derive an attractive orientation. To give a counterintuitive and extreme example, how often does thoughtful reflection consider the ways in which the worlds of physics is connected to the worlds of human history, or also the inverse, how often is thoughtful reflection directed towards the ways in which the worlds of human history are connected to the worlds of physics? To be specific, the world of physics in-itself is not only impossible to disentangle from the worlds of physicists and physics communities (i.e. the study of physics is not a study of purely reasonable objective abstractions divorced from subjectively reified aesthetic desires and communal language games), but also increasingly, the world of physics in-itself is increasingly impossible to disentangle from the general human world as a totality.

This problematic is two-fold. First, holistic analysis can never exclude the fact that there is no known object or relation without a knowing subject embedded in historical context viewing phenomena with a particular narrative-frame (i.e. the objective world appears through or rather is itself constituted by subjective synthesis). Thus, to once again deploy the example of the “atom”, the physical entity of “atom” cannot be abstracted away from the physicist deploying the concept of “atom” (where the “objective” notion is primordially “subjective”), or from scientific communities unified via ideation (where “the atom” is a universal elemental ground for thoughtful analysis), or from networks of technological apparatus developed by human civilization used to study the atom (and manipulate/change its motion/nature). Also, secondly, and as a consequence, for evolutionary developmental analysis it must be considered that any coherent theory of the totality of human-nature relation capable of approaching an infinite openness/incompletion for eternity, or alternatively a future closedness/completion in infinite eternity, would not just include a reconciliation of macro-micro reality in general relativity and quantum mechanics (as in the reductionist approach to a total theory of quantum gravity), but also a higher-order theory of psycholinguistic knowledge and understanding in middle reality where such a “total theory of objective reality” is being “subjectively synthesized/mediated” as an absolute necessity.

Furthermore, this example of the practical dimensions of holistic thinking can be more deeply explored by focusing on the constructions of communities of physicists that increasingly generate new manipulable interactions with smaller and smaller levels of physical reality either through creating new types of interaction (i.e. where theoretical abstractions stimulate experiments that change ontology) or by simulating forms of interaction that would otherwise be impossible in our local region of the universe (i.e. like re-creating the environmental conditions of the big bang with high-energy particle colliders, etc.). This mode of thinking again highlights a paradoxical inversion where cognitive networks of scientific epistemological constructs exert an extreme causal efficacy on the ontology of the physical universe (opening up domains of (technologically mediated) “thought playing” with fundamental constituents of matter, etc.). Thus, this may represent a crucial problematic for the future of the evolutionary developmental point of view, meaning that there is a peculiar asymmetry in the organizational relation between thought and being, observer and observed, ideas and matter; namely, the asymmetry that one (being/observed/matter) is being processually mediated/synthesized/sublimated by the other (thought/observer/ideas). From this perspective perhaps it is not simply that analysis can collapse thought and being into general complex organization in a multi-level hierarchy, but rather it is that thought emerges in being eternally divided/antagonistic (one (being) as the other of the other (thought)) within complex organization as if there is a more fundamental rising and falling action inherent to their division/antagonism that requires analysis *on the side of thought* (as in the Parmenidean ground of philosophy (logical thought) as a primordial wailing for the “One” “Absolute Being” that would keep the nothingness (imminent non-being) at an eternal distance).

To make matters more extreme the products and technologies of human history are increasingly and inextricably bound up with the formation of new possible types of physics communities. For example, testing for the existence or inexistence of super-dimensional string worlds (i.e. the fundamental ontology of nature) is something that is solely dependent on human historical processes producing the necessary technology for testing such a hypothesis (i.e. the epistemology of human society). Thus, the aesthetic images of the human mind (the only domain where analysis has evidence of super-dimensional string worlds) are the causative driver of dynamic processes that will potentially “reconcile” our understanding of physical nature and release new untapped and unpredictable potentiality in the same way that the modern discovery of the atom unleashed new untapped and unpredictable potentiality. From this perspective when thinking about the grand unified theory of nature as an understanding of quantum gravity, analysis cannot forget that this is the situation from the perspective of being only (on the side of being); from the perspective of thought (on the side of thought) there are psycholinguistic cognitive networks working at the symbolic gates of physics knowledge gazing upon/transfixed by a super-dimensional symmetrical vision dependent on the existence of physics communities collective self-positing (It is an ideal real! It is a consequence of logical mathematical extrapolation!).

In summary the scientific philosophy which universalizes an evolutionary developmental thinking emphasizes a complexity narrative in order to understand the totality of the human-

nature relationship. This view in turn asks for a contemplation of the current human futures horizon that is part of an interconnected and continuous teleological, emergentist, and holistic processual dynamic. In other words, the scientific philosophy of evolutionary development is not only grounded in a view of the world that is in constant change (“dynamic process” that is “temporality”) but also reasons that an accurate conceptualizations of the human position in relationship to nature can take the form of an imminent yet to-be-realized level of universal complexity that will play host to a new horizon/frontier of being where hyper individuated subjectivity actualizes-realizes itself within a global technological medium of digital interaction. Consequently, when thinking about the human future as an open-incomplete mystery paradoxically determined by the telos of individuated human subjects this view stresses that currently inexistent properties (“virtual potentialities”) will exert a causal efficacy not only in relation to the whole of our conceptualization of the universe (i.e. what we think of ontologically as “the universe”), but also in relation to our conceptualization of the universe itself changing the universe (i.e. the increasing causal efficacy of our epistemological abstractions). This is all-in-all a strange but interesting and potentially very productive way to think about the future of human-nature existence and meaning.

However, does this scientifically inspired philosophical conceptualization of temporality help us when we are approaching the future human horizon that *includes* the actualization-realization of a universal metasystem transition as technological singularity? A potential complication that immediately enters the evolutionary developmental narrative-frame of increasing complexity has to do with the nature and existence of narrative-frames in-themselves. In other words, from analyzing the human-nature relationship using the narrative-frame of an evolutionary developmental scientific philosophy what analysis may miss is an ability to understand the *observational world of narrative-frames in-themselves which do not change but represent constants of a linguistic horizon* (i.e. every human is “always-already” the structure of a narrative-frame). Humans do not just perceive and act the world in the way that other organisms perceive and act in the world; humans perceive and act in the world through a priori structural networks of conceptual interpretation that “discretize” the world in conceptual categories (like “atoms”, “cells”, “organisms”, “individuals”). This means that the infamous philosophical problematic that ‘we will never know what it is like to be a bat’ (for example) (Nagel 1974), is only half of the story; the other half is that there is a narrative-frame that can conceptualize inhabiting the world as a bat, however impossible (or that can conceptualize human-nature relations as a totality; or that can conceptualize confrontation with an absolute being, etc.).

In this way the problem of approaching the future human horizon that includes the actualization-realization of a universal metasystem transition with an evolutionary-developmental narrative frame is that even this narrative frame is just one such conceptual interpretive structure (appearing in the “here-and-now” as a particular form of historical consciousness) among a multiplicity of such narrative-frames that exert an ontological efficacy and will undergo historical dialectical transformations that will definitely be totally alien to our contemporary form of historical consciousness. In other words, what will be the dominant

narrative-frame(s) in some “yet-to-be-determined” future? Will they be “evolutionary developmental”? Will they even be “scientific philosophical”? Will they even be humanly constituted? Will there even be such things as narrative-frames? Or, perhaps more naively, is analysis capable of understanding the multiplicity of narrative-frames that exist at our current historical moment, both within the domain of temporality structured by science (i.e. the temporality of evolutionary science versus the temporality of fundamental physics, for example), and outside of it by the domain of subjective multiplicity in-itself (i.e. the temporality conceptualized by Christians, or Chinese nationalists, or any random subject)? Does analysis potentially miss a higher-level meta-pattern that manifests itself at the level of the linguistic horizon, as in the Freudian notion of the Oedipal fall from “perfect unity”,¹ or as in the Campbellian notion of a heroic archetypal rise towards “transcendent ordering” (Campbell 2008).

To be as precise as possible how is a philosophical analysis of the human-nature relation to approach the issue that the “parts” of this future human system integration towards a more complex organization are irreducibly subjective and themselves subject to qualitative transformation? Can philosophical analysis think the qualitative transformation or even the end of the human-nature relation? (Brassier 2007) The consequences of the fundamental elements of the next system transition being subjective is two-fold: on the one hand each element of the system transition possesses its own internal psycholinguistic temporality (i.e. a multiplicity of past-present-future conceptual interpretative structures); and on the other hand these subjective elements are collectively responsible for the particular construction of a universal temporality of physical processual dynamics via a priori interpretative narrative-frames (i.e. the complexity narrative of “big bang to global civilization” structure is both a description of cosmic processual dynamics that precedes our emergence (IS) and a subjective orientation tool for our future action in the world (OUGHT)). In short, can analysis be satisfied with a scientific description of temporality that may break down on contact with historical temporality in-itself where the self-consciousness driving the process itself changes on a fundamental qualitative level? How are scientists of humanity to understand the consequences of an internal multiplicity of psycholinguistically mediated temporal forms (i.e. billions of subjectivities individuating and organizing towards desires for self-actualization, self-realization)? And how are philosophers of science to understand the fact that what we think of as the physical universe is always-already a linguistically constituted form of temporality constructed to orient action in relation to a field of cosmic process?

¹ Here, I recall a midwife affirming for me that even in the womb the fetus embodies the voice of a primordial wail. In other words, it is not on contact with the world and separation from the Mother as event that the fetus recognizes a traumatic uncloseable divide, an antagonism; this divide/antagonism is internal and primordially in-itself from the beginning of symbolization, something which is then retroactively inscribed by the subject as being caused by world events (i.e. “if only we could get rid of “X” then everything would be perfect”). Thus, this “failure” or “misrecognition” of the “primordial fall” from “perfect unity” is the emergent essence of psychoanalytic thought, and the structure of the impossibility of recapturing an equilibrium devoid of an external disturbance. To be a subject is to be minimally *disturbed from within, de-centered from within*.

The clear division at work in this problematic is one that separates the “horizon of temporality constructed with scientific language” from the “horizon of language that constitutes historical temporality” in-itself. In other words, there are many ways in which the horizon of what we think of as the universe in scientific terms (i.e. evolutionary developmental scientific philosophy) is a product of forms of historical consciousness that require an even more sophisticated meta-reflective knowledge and understanding. This means that the question is not whether “evolutionary developmental scientific philosophy” is a correct or incorrect description of the human-nature relation (it is a particularly engaging and useful historical manifestation of conscious reason given contemporary empirical observations), but rather, what is the meaning of the conceptual structure of “evolutionary developmental scientific philosophy” emerging on the horizon of historical consciousness? The strongest constraint in this problematic is that analysis can never “jump into the future” and empirically observe the consequence and destiny of the subjective multiplicity of narrative-frames. This means that any analysis will never be able to fully comprehend the consequences of billions of individuating self-actualizing entities (their “future visions” are nature’s “own most potency”); nor will it ever be able to fully comprehend the future linguistic conceptualization of temporality (i.e. nature’s irreducible retroactivity; what will science or the dominant thought forms on the horizon of being in 2050, 2100, 2200, have to say about the human-nature relation?) (Heidegger 1996).

How, then, can analysis deal with this futures horizon problematic? Here it is proposed that analysis must “always-already” be grounded reasonably and sensibly in the “here-and-now” as these processes unfold. In other words, as the whole of human civilization complexifies via differentiation-integration, and becomes retroactively reconstituted by emergent phenomena, a true “holistic” analysis must attempt to take a “meta-reflective distance” from the play of narrative-frames and their ontological consequences, and instead attempt to analyze this play by occupying the impossible position of an inhuman gaze and voice (Žižek 2012, p. 953). This meta-reflective distance emphasizes that, on the terms of the horizon of historical consciousness, any meaningful prediction into the future breaks down and logical dialectical mediation in the present takes primacy (i.e. we have open and incomplete rational argumentation). In this sense, even futures predictive extrapolations can only be reasonably interpreted as subjective futures phenomena in the present that are “always-already” exerting causal efficacy in the “here-and-now”. For example, when evolutionary or complexity scientists predict that by mid-century artificial general intelligence will overtake humanity for a higher level of knowledge and understanding in relation to nature (Kurzweil 2005), this claim should not be interpreted literally (i.e. there will actually be realized artificial general intelligence that supersede humanity, etc.), but rather, should be interpreted as a particular attractor metaphor (vision) exerting causal efficacy on the symbolic here-and-now (i.e. a vision mobilizing/motivating cognitive networks of artificial intelligence researchers to construct-develop various forms of machine learning entities that will potentially change socioeconomic and sociopolitical structures, etc.).

Consequently, as a supplement to the evolutionary developmental philosophy that emphasizes “dynamic process” “temporality” “constant change” and so forth, the logical dialectical mediation of the horizon of historical consciousness in-itself requires some form of

analytic “stable-invariant structure” (i.e. structure that remains unchanged irrespective of processes of transformation in the world of narrative-frames). This is necessary in order to ground us in the “always-already” “here-and-now” of “historical consciousness”. Historical consciousness is the strangest of all objects of analysis because it encompasses the domain of human will but is at the same time beyond the domain of human will (Lenartowicz 2017); it is instead a type of emergent circular “perpetual motion machine” of constant-invariant narrative-frame movement orbiting a field of absent objects (just think about all the humans “here-and-now” thinking and talking away: *about what exactly? Why?*). Western science and philosophy have a long history of experience with stable-invariant types of thinking (or “fixed-static” types of thinking). The most successful and influential modern forms have emerged in the form of Newtonian classical mechanics (Newton 1999) and Hegelian logical dialectics (Hegel 2010), both of which owe their construction in part to their formation out of the tradition of Abrahamic-Christian thought or Greek-Platonic thought which also offered a particular type of “stable-invariant” or “fixed-static” absolute eternity (i.e. God, One, etc.).

First, the most successful scientific practices have historically been grounded in Newtonian dynamics characterized by a simple universalized “eternal geometry” (absolute space, absolute time) where mass accelerates proportional to the gravitational force exerted on the substantial body-in-question, $F=ma$. The logic of this form of knowledge is that process and change are subordinated to/derived from a reified fixed-static geometrical-spatial background upon which temporal process and change occur under the determined ideal guide of physical law (“laws of motion”). Thus, this view of the world is often described metaphorically as a “clockwork” where motion is repetitive, circular and eternally fixed to the static background of absolute space. Second, the most successful humanities practices have historically been grounded in Hegelian dynamics characterized by the dialectical mediation of self-consciousness under the structure of a science of logic. This dynamic process of self-conscious mediation occurs on the background of a simple and universal “eternal geometry” of logic where thought’s desire for truth in the form of a unity with being (reality) is achieved through reasoned argumentation between divided forms of the absolute (points of view). In this view historical consciousness in-itself is interpreted as helical with different historical epochs of change or motion driven by opposing/polarized unities that represent particular manifestations of the absolute’s logical desire for actualization-realization. Thus, Newtonian dynamics can be described as a universal unity of scientific thought with the movement of being (i.e. all motion is absolutely contained); whereas Hegelian dynamics can be described as the historical ideational movement of thought as a universal unity rising (integrating) and falling (dividing) internal to (in and through) the particular (i.e. absolute containers in motion).

However, absolute-eternal thought is not devoid of dominant representation in the modern realm of scientific historical consciousness. Indeed, analysis can easily identify that there is a structural thought antagonism between evolutionary developmental theorists and dominant forms of high theory in fundamental physics where Newtonian presuppositions still play a role in conceptions of string theory. First, as articulated above, in holistic philosophical forms of modern evolutionary science, analysis often works from a dynamic process view

discarding of any absolute-eternal view that operates upon an invariant background structure capable of escaping relational network processes of transformation and change; *for evolutionary developmental thinking network processes of transformation and change are all there is*. The main philosophical problem with the absolute-eternal view from the evolutionary developmental point of view is that you logically cannot derive real effective change/motion from an eternal-invariant background that is “always-already” and thus it becomes difficult to explain the emergence of new phenomena capable of exerting a real causal efficacy in the world (Bergson 1911). Indeed, the main problematic with classical mechanical models of the universe (and even many conceptions of logical dialectic models of history) is that they cannot be applied to cosmic evolutionary or big historical thinking where the emergence of novelty is fundamental and not simply capable of being derived from an a priori absolute fundamental reality. For the evolutionary developmental view the fundamental reality *is* nothing but an emergent higher level dynamic process.²

Thus, such forms of scientific thought that emphasize dynamic process over an eternal absolute produces an incompatible antagonism with some forms of theoretical physics as many variations of string theory ground a search for a quantum gravitational grand unified theory of everything capable of reconciling general relativity and quantum mechanics with a background dependent eternal-absolute view. The main difference between these views is that in the dynamic process view spacetime emerges from action and thus the background for action changes, but in an eternal-absolute view spacetime becomes an invariant arena for action that remains fixed independent of action (Smolin 2006, p. 84-5). From this perspective many string theory variations operate under a “pre-mature” “closure” and “completion” where an invariant-fixed background dependence is essential (not subordinate to the dynamic emergence of higher-level processes) and represented by a (still empirically absent) super-dimensional realm of strings from which all changes and processes of transformation in four dimensional reality are derived as epiphenomenon of this underlying fundamental reality. However, the notion of background dependence and independence in the search for a theory of quantum gravity is contentious and complex. Indeed, many variations of string theory and contenders to string theory like loop quantum gravity theory, do not require background dependence to achieve a total view of reality (Rovelli & Vidotto 2015, p. 230). These variations of an “open” approach to a fundamental theory of nature with emergent laws logically lend themselves to the processual dynamic relational view of the world. In background independent theories of quantum gravity research is fully grounded in our evolving-developing four dimensional world and relativistic to the internal force of relational spin networks (phenomena independent of any super-dimensional reality that we cannot directly observe and test as in many variations of string theory).

Consequently, loop quantum gravity theorists, or simply theorists supporting a background-independent view of quantum gravity, claim that this emphasis on “background-independence”, is the only way to take into consideration the full consequences of the Einsteinian spacetime revolution. This is because the revolution in Einsteinian science negates

² Hello, the fundamental reality is speaking to you now as a disembodied cogito.

Newtonian absolute space and time as an invariant arena for motion/change and replaces these fixed structures with a processual dynamic spacetime manifold (Collier 2017, p. 126). Thus, theorists who propose an alternative to background-dependent string theory claim that the dominant string theories work from a view that cannot discard with a “classical apparatus” of super-dimensionality as eternal-absolute (Penrose 2004, p. 1042). The result is that string theory may not be capable of fully accounting for the effects and consequences of extreme processes that have been observed to take place within four dimensional spacetime manifolds such as the existence of black hole singularities, and the big bang singularity. Both phenomena were first predicted by Einstein’s theory of general relativity, and both phenomena are characterized by dynamic processes where totally new phenomena emerge and retroactively restructure reality in forms un-dreamed of in Newtonian classical mechanics where laws are fixed and static (not contingent and re-writable by dynamic actions, so to speak). From this perspective the true eventual break in the history of Einsteinian theory is reflected in Einstein’s own irrational fears about the loss of any eternal absolute background with a static-fixed constant, and thus his initial presuppositions that big bang and black hole singularities are impossible.

To return to the task at hand in this analysis how, then, is contemporary philosophy to reconcile the human futures horizon of the dynamic processual play of narrative-frames by stabilizing an invariant stable structure that can represent a static-fixed constant of the human universe? How is analysis to simultaneously ground an absolute-eternity while simultaneously taking higher level emergent phenomenon seriously as capable of effecting real ontological change? The answer may involve a more nuanced interpretation of historical dialectical logic where analysis does not assume the substantial existence of an a priori absolute eternal structure which overdetermines all historical linguistic play in a classical teleology (i.e. “the eternal absolute has already been actualized-realized and the end of time is an imminent consequence of the deployment of world spirit in opposed polarized unities”, etc.). Instead, analysis can posit that the processual dynamics inherent to/constitutive of language logically produce absolute-eternal ideational structures which then retroactively govern the processes of individual and social change that occur within the domain of conscious psycholinguistic beings. In other words, a fundamental feature of dynamic process internal to the operations of self-conscious psycholinguistic structures in history is the *paradoxical emergence of absolute eternal structure that is only retroactively a fixed-static arena for action-change*. From this perspective analysis may be able to resolve the structural antagonism between historical dialectical philosophy and evolutionary developmental science; and also resolve the structural antagonism between background dependent string theories and alternative background independent quantum gravity theories by emphasizing the paradoxical dynamic of self-conscious psycholinguistic phenomena. In this sense analysis must always-already be second-order recognizing the processual mediation of thought and being, observer and observed, ideal and material (Umpleby 2016).

First, in classical interpretations of historical dialectical thinking the geometry of logic is an eternal background, and for evolutionary developmental thinking everything changes independent of a background. However, this antagonism can be reconciled by positing that an eternal background of logic emerges in the domain of language from a background independent

biological evolutionary process of dynamic change and then retroactively structures analysis from an invariant arena of self-conscious recognition (i.e. the individual and social search for historical truth via reasoned argumentation). Second, in string theory a super-dimensional realm of strings is a logically presupposed eternal background from which change can be derived in mathematical formula, and in alternative quantum gravity theories everything changes independent of a hypothetical eternal background of super-dimensional strings (which are not dismissed as a hypothesis, but simply treated critically and skeptically due to a lack of empirical evidence). However, this antagonism can be reconciled by positing that the eternal background of super-dimensional strings emerged as a logically necessary language game within social communities of physicists that was useful to derive mathematically elegant solutions to fundamental problems of a deeper future understanding of quantum gravity.

In both situations, the issues between historical dialectical philosophy and evolutionary developmental science, and the issues between string theory and alternative quantum gravity theory, can be reconciled if we take seriously the psycholinguistic domain of self-conscious thought which is repetitively positivizing union between itself (thought) and being in the mode of an indestructible desire for (super)symmetrical perfection as an invariant background of change and transformation. In the case of evolutionary developmental science one must simply recognize that evolutionary development in history is witness to the emergence of a logical search for simple self-evident eternal truth (as in evolutionary developmental scientists who are always-already operating under specific presuppositions about evolutionary development). In this sense evolutionary developmental science and historical dialectical logic both agree that dynamic process is the highest reality (i.e. the “fundamental reality” is “emergentist and holistic” instead of “reductionist and fragmented”), but it is only that in historical dynamic process there is an emergent demand for absolute eternal unity between thought and being (like for example in reductionist and fragmented physics communities) that cannot be ignored if analysis is to truly understand dynamic process in human civilization. In the case of loop quantum gravity theories (for example) one must simply recognize that the desire of physics communities cannot be abstracted away from the object-in-question but instead be mediated by historical dialectics. In other words, perhaps the supersymmetry/union of a grand unified theory of nature with quantum gravity must also include a theory of conscious psycholinguistic beings searching for a logically mediated eternal truth as self-evident. Is not the phenomenon of physics communities in history the best example of a repetitive temporal rising and falling of ideational unity with nature? Is not the (so-called) “trouble with physics” the circular motion of physics communities in-themselves which passionately cling to an eternal-absolute devoid of observational confirmation independent of their imaginary desires and logical extrapolations?

From this perspective analysis avoids the problems related to deriving change from an eternal invariant background because the eternal invariant background does not universally precede our existence (as in naive interpretations of historical dialectics and string theory) but rather *emerges internal and relativistically to the dynamic change of conscious psycholinguistic structures and then retroactively changes the nature of psycholinguistic community formation* (as in historical communities like string theorist communities who consciously organize themselves

around the symbolic gates of a super-symmetrical vision of imaginary unity). In this way analysis can affirm that dynamical processes are all that exists (there is no “higher/deeper” “fundamental reality” “behind the play of narrative-frames”), but at the same time recognize that within the dynamical processes of psycholinguistic community formation a “higher/deeper” “fundamental reality” emerges internal to these dynamical processes as a phenomenal eternal-absolute necessary for the stabilization of a drive. Indeed, this dynamic process of *relativistically emergent background dependence internal to psycholinguistic social communion* may be the case for all self-conscious psycholinguistic social structures like sexual unions, scientific unions, political unions, and religious unions. In these phenomena symbolic change-action first occurs in a background independent space (open space of virtual possibilities where “anything could potentially happen”), but then, from the very becoming of symbolic change-action, there is the production of an emergent eternal invariant background (eternity derived from logic of change, instead of change derived from logic of eternity) which then retroactively subsumes all consequent symbolic change-action (as in the empirical reality of historical consciousness). This is true even of self-conscious psycholinguistic social structures formed around “background independent” evolutionary developmental scientific philosophy or loop quantum gravity theory, for example, as all symbolic change-action in communities of evolutionary developmental scientific philosophy or loop quantum gravity theory is dependent upon emergent imaginary backgrounds that retroactively structure all symbolic motion/change (which have *real* ontological effects and consequences on the historical horizon of temporality).

Therefore, analysis may posit that the desire inherent to the deployment of symbolic thought spontaneously produces or confronts an “ideal perfect symmetry” between itself and its reality (being) in a multiplicity of guises (e.g. sexual (marriage union), scientific (total theory of nature), political (utopian community), religious (heavenly God); these are but a few of the most notable examples that have characterized historical process). These “ideal perfect symmetries” appear as forms of “pre-mature” self-conscious “closure” and “completion” designed to reconcile thought with being. This analysis may even go so far as to propose that the underlying mechanism mediating “pre-mature” self-conscious “closure” and “completion” is the mechanism of “true love” (as in: “we have/found the One!”; where Two (thought-being; observer-observed; ideal-material) become One and eradicate all otherness via production of a (virtual) Third mediating term as emergent social system). In all examples the “background dependence” between a multiplicity of subjects in a unity emerges contingently and is thus transformed into a necessity by nothing external to the self-positing of the individuals composing the social unity (as in there is no “Christian God” independently of the “community of Christians”, or there is no “super-dimensional string world” independently of the “community of string theorists”, etc.). In other words, the “marriage union” (sexual), the “total theory of nature” (scientific), the “utopian community” (political), the “heavenly God” (religious), as common examples of historical forms of unity, only exist because symbolic networks operated by self-conscious forms of subjectivity posited these forms as necessary. In this way the ideal of an “absolute-eternal” background as universality (as in Newtonian and Hegelian dynamics) is something that emerges internally and relativistically to a multiplicity of individual and social symbolic forms on the horizon of temporal historicity.

Here an interesting paradox in this analysis is that such “true love” motion could be described as a central attractor for symbolic action that is metaphorically “quantum gravitational”. In the case of the formation of any unifying motion of “true love” what precedes the formation is a virtual field in a superposition of singular absolute potentials (contingent uncertainty as quantum mechanical). In other words, the realization-actualization of any “singular absolute” is totally contingent, totally uncertain prior to realization-actualization (a wavy fluctuation), and only has a type of “existence” in a continuous field of imaginary virtuality. However, what causes this virtual field in a superposition of singular absolute potentials to actualize-realize itself is the self-conscious collapse onto a determinate singular absolute object that synthesizes a phenomenal center for the subject (necessary certainty as gravitationally relativistic). In other words, the realization-actualization of any “singular absolute” as a force in-itself (i.e. the historical existence of opposed-polar unities) is not dependent on any external universality, but rather is a paradoxical universality that exists only in-and-through its self-posed expression (metaphorically homologous to the quantum state reduction (measurement paradox) that occurs between U and R processes in quantum field theory where a “linear time evolution” (U) of vast superpositions undergoes a “non-linear state reduction” (R) to a single determinate position (Penrose 2004, p. 530). Consequently, in this frame, the metaphor of “quantum gravity” describes a dynamic process where an “eternal absolute” can shine through internal to temporal dynamic processes governed by symbolic world-lines as networked subjects opening and closing around objects of desire that curve surfaces relative to the observer.

What is the “metaphysical” level at work here? Can philosophical analysis reclaim limits and center with this analysis? Can philosophical analysis reclaim a dialectical orientation to closure and completion? First, the metaphysical level at work is not a “higher eternal absolute substance that precedes all human symbolic change-action and functions as a universal center” (as in pre-modern metaphysics or naive teleological thought). Instead, what analysis is dealing with is a fundamental absence as a universal void-center of human being internal to symbolic relational operations which “teleodynamically” curve subjective spacetime via self-positing an ideal reconciliation. In other words, the only universal “eternal-absolute container” is the fact that symbolic dynamic processes encounter the imminence of death and thus the phenomenal void structuring the core of their own limits and finitude. Thus, the universality of the symbolic order is the universality of an *absent-void non-container/anti-container populated with fields of virtual imagery* that become *retroactively positivized by an impossible fullness in symbolic-narrative* (as in the basic structure of death and immortality presented in the “Mortality Paradox” where death is perceived as imminent and impossible simultaneously (Cave 2012)). Consequently, a potential path towards reclaiming limits and centrality may be re-articulating the eternal question of “why is there something rather than nothing?” with the question of “why is there nothing rather than something”?

This perspective on something/nothing strikes at the core of the difference between temporality in scientific language and the temporality of historical language in-itself. Whereas

temporality in scientific language is focused on the processual dynamics of complex organizations (thus the question of “why is there something rather than nothing” is the most appropriate formulation because analysis is focused on the processual dynamics of “something”); however, for the temporality of historical language in-itself the focus is on the actualization-realization of the eternal absolute (thus the question “why is there nothing rather than something” is the most appropriate formulation because the focus is on the processual dynamics of positivizing “nothing”). What analysis must then think is how to interpret the insistence of points of view that undergo dynamic processual transformations that involve self-posed closures and completions; or dynamic processual transformations that involve social systems that actualize-realize themselves as “absolutely necessary” “transcendent spaces”. If the “higher absolute eternal substance” is what human beings (attempt to) “positivize” retroactively by virtually filling the void-center encountered within the symbolic order with an “ideal perfect symmetrical” form (like a repetitive series of 0s and 1s), what are the consequences of this repetitive motion in the context of historical consciousness in-itself as a “perpetual motion machine” “beyond individual human will”? Is there a possible reconciliation of this relation internal to the symbolic order between void and substance, between death and life?

From this standpoint philosophical analysis can return to the issue of how to mediate an understanding of the human futures horizon that includes the actualization-realization of a universal metasystem transition. The “evolutionary-developmental” worldview offers a “teleological, holistic, emergent” perspective on the human-nature relation but does not allow us approach the nature and existence of narrative-frames in-themselves. What will be the dominant narrative-frame in some “yet-to-be-determined” future? Will it be “evolutionary developmental?” Will it even be “scientific philosophical?” Will it even be humanly constituted? Will there even be such things as narrative-frames? Or, perhaps more naively, is analysis capable of understanding the multiplicity of narrative-frames that exist at our current historical moment, both within the domain of temporality structured by science, and outside of it by the domain of subjective multiplicity in-itself? In order to achieve an analysis of such questions the “horizon of scientific temporality” (big bang to global civilization) and the “horizon of historical temporality” in-itself (which plays host to a multiplicity of self-conscious psycholinguistic individuals and communities thought driven for “super-dimensional” union with being) must be clearly differentiated.

Philosophical analysis that takes place on the horizon of historical temporality in-itself can thus occupy a stable-invariant structure as the universally missing/absent “void-center” at the core of self-conscious psycholinguistic historical processes. This void-center is a structure that remains unchanged irrespective of symbolic processes of transformation within the narrative-frame domain of historical consciousness and thus enables us to ground philosophical analysis in the “always-already” “here-and-now” without risk of being dislodged from the central-limit of analysis. Thus, the methodology at work here is that instead of filling in the universal void non-container/anti-container with a particular “ideal perfect symmetry” (pseudo) absolute eternal container as a full background anchor for symbolic change-action in the domain of sexuality, science, politics, religion, etc., analysis can instead occupy it as a noumenal inhuman gaze-voice

as if it were already dead/extinct (i.e. as if it had already exited the domain of human relations). Another way of saying this is that the “void-center” around which the narrative-frames of the human universe circulate is death itself (the ultimate nothing that effects temporal dynamic process). From this “dead-extinct” position analysis as disembodied cogito can watch and communicate to the rest of humanity what is happening in the play of historically engaged narrative-frames undergoing symbolic transformations on a virtual background dependent on the looped self-positing of idealistic human individual and community networks attempting to reconcile thought with being. In such analysis the emphasis focuses on the effects and consequences of the multiplicity of narrative-frames within the domain of historical temporality. How are ideal thought structures being deployed? How are they changing being? How are they changing social organization?

The tools for an invariant-stable analysis of narrative-frames from a void-center thus holds some form of paradoxical “dynamic eternal geometry” of stories and visions as an object. Such a dynamic eternal geometry must capture a cognitive structure that is always-already the same irrespective of any transformative processes, but at the same time is always-already the structure within which transformative processes occur. Here in this analysis the structure that will be proposed for such a study is something like a “looped and rotating triangular form” with three spatial dimensions (which can be represented in a multiplicity of ways) and one temporal dimension (its opening and closing symbolic action in relation to a virtual background both in-itself and in-social networks with other rotating loops). Throughout history many different individuals and cultures have reified images of looped-rotating triangular structures and have expressed reflective forms of cognition that are structured in “unified threes” (Judge 2017). For example, in Plato we see the “One” as “Beautiful-Good-True”; in Christianity we see the “One” as “Father-Child-Holy Spirit”; in mysticism we see the “One” as “Mind-Body-Soul”; in continental philosophy we see the “One” as “World-Being-Event”; in psychoanalysis we see the “One” as “Imaginary-Symbolic-Real”, and so forth.

All such symbolic presentations of the “One” can be useful in dynamic analysis that takes into consideration the evolutionary-developmental consequences of “teleology, emergence, holism”; or alternatively, all such actualized symbolizations could be in-themselves merged to form a historical meta-pattern or super-pattern of the “One” (the thoughtful narrativization of being). From this perspective spacetime does not exist independently of these looped and rotating triangular networked forms but rather, these looped and rotating triangular networked forms are themselves forms of spacetime which seek and find “higher dimensions” (“heavenly dimensions”) mediated through internal transformations of their own networked dynamic eternal geometry (as in sexual, scientific, political, and religious communities of many varieties and forms). In this way analysis can frame individual and social organizing events produced by self-conscious psycholinguistic structures as emergent manifestations of absolute eternity within historical temporality; as attempts of looped-rotating networks of cognitive triangles to actualize higher dimensions of thoughtful super-symmetrical union with being grounded in “true-love” that undergo repetitive division. In this sense analysis can take a reflective distance from any

particular form of thought-being unity as uniquely privileged (“I/we have the “real One”) and start to understand the general patterns of thought-being unity in-themselves.

In such an attempt how far can the metaphor of subjective world-lines exerting quantum gravitational force through symbolic transformations that overdetermine spacetime be taken in analysis? One is here tempted to contribute to a theory of the subject as a triangular looped-rotating structure with a virtual curvature and a symbolic mass by inverting Einstein with the axiom: “virtuality tells the symbolic how to move, and the symbolic tells virtuality how to bend”. From such a perspective the phenomenal “One” that appears virtually to the subject (unifying thought and being) absolutely contains the symbolic movement of the subject (i.e. what the subject thinks, says, writes, etc.); and such symbolic movement, in turn, transforms the subject’s phenomenal vision of the “One” (causing the unity of thought and being to enter phases of repetitive self-division). Can such curved motion be used to model the structure of historical temporality where an absolute eternity invades dynamical process and retroactively restructures dynamical process? In such models the “One” is inherently a virtual multiplicity of curved surfaces relative to the observer that exert a causal efficacy through symbolic action in the world.

Furthermore, the repetitive de-centerings of modern science (i.e. cosmic in relationship to macro, micro reality; biological in relationship to evolution of organic life forms; and cognitive in relationship to phenomenal un/sub-conscious and material-neuronal processes, etc.) and the ultimate consequences of reductionist-fragmented cognitive networks of science which present to historical consciousness in-itself an imminent infinite-immortal center as technological singularity, miss the fundamental de-centering *internal to the self-conscious psycholinguistic apparatus*. In other words, the subject emerges *as a lost object of the symbolic order-chain* (i.e. the “Name/Self-Identity” of the subject is an object of the symbolic chain that the subject orders), this lost object *appears as a virtual One* (i.e. the subject’s thought-visions of a transcendent symmetrical unity with being), and the subject’s attempt to reclaim this object *is the very nature of the subject itself* (i.e. that this unity with being may be achieved through proper symbolic transformations which constitute the rising and falling action of the subject). The question thus becomes: what are the consequences of fields of subjectivity that have internally transformed their symbolic architecture in relation to the most extreme limit-images as curved surfaces?

Here picture the image of “free-flowing subjectivity” that, in its purely contingent symbolic state devoid of any imposed-coercive external inhuman necessary force, becomes stuck/trans-fixed on an object-attractor as contingent necessity that emerges as an unquestionable inhuman force from within. The subject then, in turn, revolves around this object-attractor in a circular motion forever, abolishing temporality (as in the basins of attraction in complexity science; or as in the matter orbiting a black hole in quantum cosmology). It is in this sense that analysis may be engaged to think in an inverted way the theoretical transition that occurs between Newton and Einstein (with its introduction of big bang singularity and black hole singularities) and its introduction of the equivalence principle; where the second law governed by an external universal force $F = ma$ (inverted: $I = Sa$; imaginary external forces as the cause of

symbolic motion and desire) become a “pseudo-force” and replaced with a relativistic set of field equations devoid of external universal force $G_{\mu\nu} = -T_{\mu\nu}$ (inverted: $I_{\mu\nu} = -S[T]_{\mu\nu}$; i.e. imaginary spacetime is equal to the symbolic-work source of the curvature).

Works Cited

- Aunger, R. 2007. Major transitions in ‘big history’. *Technological Forecasting and Social Change*, 74(8): 1137-63.
- Baker, D. 2013. 10500. The Darwinian Algorithm and a Possible Candidate for a ‘Unifying Theme’ of Big History. In: *Evolution: Development within Big History, Evolutionary and World-System Paradigms*. Grinin, L. & Korotayev, A.V. (Eds). p. 235-248.
- Bergson, H. 1911. *Creative Evolution*. University Press of America.
- Brassier, R. 2007. *Nihil Unbound*. Houndsmills: Palsgrave Macmillan.
- Campbell, J. 2008. *The Hero with a Thousand Faces*. New World Library.
- Carr, P.A. & Church G.M. 2009. Genome engineering. *Nature Biotechnology*, 27: 1151-62. doi: 10.1038/nbt.1590.
- Cave, S. 2012. *Immortality: The Quest to Live Forever and How it Drives Civilization*. Crown.
- Chaisson, E. 2001. *Cosmic evolution: The rise of complexity in nature*. Cambridge: Harvard University Press.
- Christian, D. 2008. *Big History: The Big Bang, Life on Earth, and the Rise of Humanity*. Chantilly, VA: The Teaching Company.
- Christian, D. 2017. What is Big History? *Journal of Big History*, 1: 4-19.
- Christian, D., Brown, C. & Benjamin, C. 2011. *Big History: Between Nothing and Everything*. McGill-Hill Education.
- Collier, P. 2017. *A Most Incomprehensible Thing: Notes Towards a Very Gentle Introduction to the Mathematics of Relativity*. Incomprehensible Books.
- Corning, P. 2002. The Re-Emergence of “Emergence”. *Complexity*, 7: 18-30.
- Deacon, T. 2011. *Incomplete Nature: How mind emerged from matter*. W.W. Norton & Company.

- Heidegger, M. 1996. *Being and Time: A translation of Sein und Zeit*. Suny Press.
- Hegel, G.W.F. 2010. *The Science of Logic*. Cambridge University Press.
- Heylighen, F. 2011. Self-organization of complex, intelligent systems. *Integral Review*, <http://134.184.131.111/papers/ECCO-paradigm.pdf>.
- Heylighen, F. 2014. *Complexity and Evolution: fundamental concepts of a new scientific worldview*. Lecture notes 2014-15. <http://pespmc1.vub.ac.be/books/Complexity-Evolution.pdf> (accessed: May 31, 2017).
- Judge, A. 2017. Framing Global Transformation through the Polyhedral Merkabah: Neglected implicit cognitive cycles in viable complex systems. *laetus in praesens*. <https://www.laetusinpraesens.org/docs10s/merkaba.php> (accessed: June 1, 2017).
- Kaj, S. & Yampolskiy, R. 2017. Risks of the Journey to the Singularity. In: *The Technological Singularity: Managing the Journey*. Callaghan, V., Miller, J., Yampolskiy, R., & Armstrong, S. (Eds.). Berlin: Springer. p. 11-23.
- Kurzweil, R. 2005. *The Singularity Is Near: When Humans Transcend Biology*. Penguin.
- Last, C. 2015. Human Metasystem Transition (HMST) Theory. *Journal of Evolution & Technology*, 25(1): 1-16.
- Last, C. 2017. Big Historical Foundations for Deep Future Speculations: Cosmic Evolution, Atechnogenesis, and Technocultural Civilization. *Foundations of Science*, 22: 39-124. doi: 10.1007/s10699-015-9434-y.
- Lineweaver, C.H., Davies, P.C.W., & Ruse, M. 2013. *Complexity and the Arrow of Time*. Cambridge University Press.
- Lenartowicz, M. 2017. Creatures of the semiosphere: A problematic third party in the ‘humans plus technology’ cognitive architecture of the future global superintelligence. *Technological Forecasting and Social Change*, 114: 35-42.
- Nagel, T. 1974. What is it like to be a bat? *The Philosophical Review*, 83(4): 435-450.
- Newton, I. 1999. *The Principia: mathematical principles of natural philosophy*. University of California Press.
- Penrose, R. 2004. *The Road to Reality: A Complete Guide to the Laws of the Universe*. New York: A.A. Knopf.

- Polchinski, J. 1998. *String theory: Volume 2, superstring theory and beyond*. Cambridge University Press.
- Rovelli, C. & Vidotto, F. 2015. *Covariant Loop Quantum Gravity: An Elementary Introduction to Quantum Gravity and Spinfoam Theory*. Cambridge University Press.
- Russell, S.J. & Norvig, P. 1995. *Artificial Intelligence: A Modern Approach*. Prentice-Hall.
- Sloterdijk, P. 2011. *Spheres. Volume 1: Bubbles (Microspherology)*. Semiotext(e).
- Smart, J. 2008. Evo Devo Universe? A Framework for Speculations on Cosmic Culture. In: *Cosmos and Culture: Cultural Evolution in a Cosmic Context*, Dick, S.J. & Lupisella, M.L. (Eds). Govt Printing Office, NASA SP-2009-4802.
- Smolin, L. 2006. *The Trouble with Physics: The Rise of String Theory, the Fall of a Science, and What Comes Next*. Houghton Mifflin Harcourt.
- Spier, F. 2005. How big history works: Energy flows and the rise and demise of complexity. *Social Evolution & History*, 4: 87-135.
- Stewart, J. 2010. The Meaning of Life in a Developing Universe. *Foundations of Science*, 15: 395-409.
- Stewart, J. 2014. The direction of evolution: the rise of cooperative organization. *Biosystems*, 123: 27-36.
- Umpleby, S. 2016. Second-Order Cybernetics as a Fundamental Revolution in Science. *Constructivist Foundations*, 11: 455-88.
- Weinbaum, D.R. 2015. Complexity and the Philosophy of Becoming. *Foundations of Science*, 20: 283-322.
- Weinert, F. 2009. *Copernicus, Darwin and Freud: Revolutions in the History and Philosophy of Science*. Wiley-Blackwell.
- Žižek, S. 2012. *Less Than Nothing: Hegel and the Shadow of Dialectical Materialism*. London: Verso.