

Part I: PHILOSOPHY OF THE COSMOS

What Is Anthropos and What Is Equal to Him?

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The author discursively thinks through three questions. "What is "man" as a physical system?" "What are the unchanging properties of this physical system, or what is equal to "man"?" "What are the changing properties of this physical system, or what is happiness?" The following results were obtained. (1) "Man" as a physical system is a derivative (emergent) property or relation, which is described by the formula "Psukhē exists/is (eimi) in the "habitual" molecular manner (dikēn)." (2) The unchanging properties or otherwise légō form the only rightful (themitós) for the molecular physical system that the formula "Zōē breathes/makes cool (psýchō) and in this way/manner (trópos) exists/is (eimi) in the expanding universe" describes. It has been proven that the cryosphere, biosphere, and noosphere are a few equal emergent molecular state-spaces that "move (work) together as one" to advance and protect the hēgemonía of the molecular physical system in an expanding universe. (3) The changing properties or otherwise noiēō is the property or attitude to advance "moderate things," i.e., molecular fields and particles in astronomical, tectonic, and geochemical events, and to protect oneself from "immoderate things," i.e., anything that destroys molecular identity and individuality. The changing properties produce and guarantee the physical state we call "happiness, well-being, outward prosperity," i.e. the right and duty to "pull together" equals, but always and only on the basis of what is right/just (dikaios/iustus).

Keywords: emergent molecular state-spaces, cryosphere, biosphere, noosphere, human nature, human happiness

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“For it is no ordinary matter that we are discussing, but in which way/manner (*trópos*) is it necessary to live?”¹

1. Introduction

I understand and implement *dialégesthai*² and *dialégomai*,³ “to practice dialectics,” “to reveal results in discussion,” or “to think discursively” as an opportunity to use the help of the best scholars⁴ and go through the present into the past. I investigate unconcealed, more precisely, equal to *alēthēs*,⁵ literally “what can’t be hidden,”⁶ which determines the Fundamental (natural) Rights and the nature of law. First of all, it is the *phúsis*⁷ that forms an ever-changing universe.

Diá-lógos proposed by Plato, guides my ascent into the past. The preposition *διά-* (*diá-*) “across (to the other side), back-and-forth to go all the way through”⁸ indicates the necessary work of the *lógos* itself. The latter is understood by me not statically, as “that which is said: word, sentence, speech,” but dynamically, as “that which is thought: reason, consideration, computation.”⁹ That is why the way to follow (*méthodos*)¹⁰ into the past is a metaphorical and literal use of Plato’s *lógos*.¹¹

¹ οὐ γὰρ περὶ τοῦ ἐπιτυχόντος ὁ λόγος, ἀλλὰ περὶ τοῦ ὄντινα τρόπον χρῆν ζῆν (*Republic* 1.352d4-5). See (Torri, 2017: 32). The Greek text is cited according to Burnet, 1901; 1903; 1978; 1907; Duke et al., 1995. The author follows the translation (unless otherwise indicated) of *Plato’s in twelve volumes*, 1967-1979. The passages quoted demonstrate Plato’s views and/or argue for transliteration.

² “This is the word appropriated by Plato’s own medium to designate itself: ‘to engage in [Socratic] dialogue’ or ‘to practice dialectic’” (Nagy, 2002: 32).

³ *Dialégesthai* (διαλέγεσθαι, verb) and *Dialégomai* (διᾶλέγομαι, verb), “to practice *dialektikē*,” “to reveal results in discussion,” or “to think discursively.” Gregory Nagy states, “*dialégesthai* is key to the survival of Socrates’ language and of his message” (Nagy, 2002: 32).

⁴ “The best” is my subjective assessment of everyone accompanying my ascent in the endnotes. The so-called “endnotes” are the actual stages of my upward path. The triumphant ascent is solely the merit of my guides. If, in reality, the ascent turns out to be stereotypical wandering, then it is all my fault.

⁵ *Alēthēs* (ἀληθής, adjective) unconcealed, true; opposite *lēthē*.

⁶ *Alēthēs*, “stresses *undeniable reality* when something is fully tested, i.e. it *will* ultimately be shown to be *fact* (authentic)” (Thayer, 1995).

⁷ *Phúsis* (φύσις, noun), origin; the natural form or constitution of a person or thing as the result of growth; the regular order of nature (Liddell & Scott, 1940). I follow Gregory Vlastos (2005: 4-19) and Werner Jaeger (1961: 44-45), which indicate the difference between the meanings of *phúsis* and naturalism. The *phúsis* and its derivatives are described by the terminology and meanings of quantum mechanics.

⁸ (Thayer, 1995).

⁹ (Liddell & Scott, 1940). “*λόγος* is not simply a means of expression that can be dispensed with: it is a fundamental characteristic of human existence; because humans are the ζῶον λόγον ἔχον, the world is necessarily disclosed to them through *λόγος*” (Gonzalez, 2009: 23).

¹⁰ *Méthodos* (μέθοδος, noun), path (hodos) of pursuit (meta-), to pursue one’s inquiry, or literally “the way to follow.”

¹¹ Andrea Capra (2015) delightfully reveals this feature of Plato’s vocabulary. I will limit myself to one example. The noun *kósmos* (κόσμος) means an “ordered system,” and metaphorically it is an ornament. The derivative verb *kosméō* (κοσμέω) is literally “to put in order,” and metaphorically, it is to ornament. Both meanings are not used as either/or but often complement and enrich each other.

On the one hand, the proposed book sings the *hymnos*¹² of Plato's *philosophia* and the dialectical way to follow (*méthodos*). The dialectic method helps me to cleanse the concrete upward way into the past to formalize equal to *alēthēs*, unconcealed, "true, as it accords with *fact (reality)*, i.e. *attested because tested*."¹³ On the other hand, Plato's *lógos* is used as *terminus technicus*¹⁴ and is "an authoritative beginning that makes continuity possible."¹⁵ I follow Niels Bohr's experience and propose a unified language to describe the physical logic of reality.¹⁶ Plato's *lógos* here are the fundamental linguistic concepts that help discursively think through modern developments in quantum physics, molecular physics, and neuroscience. It binds together the entire logic of reality, from the current understanding of the genesis and evolution of the universe to the earliest meanings that have reached our time in writing.¹⁷ That is why I am going back in time, but only to clarify the present, namely, the genesis and evolution of "man" as a physical system.¹⁸

The three greatest unsolved problems to date

I would like to emphasize and draw attention to the three greatest unsolved problems to date in understanding "man" as a physical system.

The first unsolved problem is the current understanding of human "nature." It is believed that the history of human existence is the "evolution of nervous systems," that is, "nature," which came to be approximately 7 million years ago and caused the formation of the phylogeny of hominin species.¹⁹ Modern researchers are convinced that about seven million years ago, "man" was rewarded the opportunity to "exist/be (*eimí*)"²⁰ in the expanding universe.

¹² ὕμνος, "*humnos* is not just a "hymn" – that is, a song sung in praise of gods or heroes – but also a song that functions as a connector, a continuator" (Nagy, 2002: 70).

¹³ (Thayer, 1995).

¹⁴ I selectively use Plato's semantics and vocabulary. In most cases, these are primary words in Transliteration A according to the *Liddell, Scott, Jones Ancient Greek Lexicon* (LSJ). They are shown in italics. Greek words are used as technical terms, so I do not stick to grammatical cases except for direct quotations. For me, the original meanings of words, indicated in footnotes and partially in the Glossary, are essential. I primarily use Plato's dialogues, the Platonic corpus, the *Liddell, Scott, Jones Ancient Greek Lexicon* (LSJ) and *Thayer's Greek-English Lexicon of the New Testament* (Thayer, 1995). Many Greek words have several significant connotations. In this case, I single out the most important ones for my research and separate them with a forward slash ("/"). The reader does not need to know Ancient Greek. Plato's vocabulary helps me restore discussions' primary meanings and use them as an authoritative beginning for my study.

¹⁵ (Nagy, 2002: 70).

¹⁶ "Later Niels Bohr expressed the same view in an often quoted passage: "It is decisive to recognize that, however far the phenomena transcend the scope of classical physical explanation, the account of all evidence must be expressed in classical terms. The argument is simply that by the word 'experiment' we refer to a situation where we can tell to others what we have done and what we have learned and that, therefore, the account of the experimental arrangement and of the results of the observations must be expressed in unambiguous language with suitable application of the terminology of classical physics (*APHK*, p. 39)" (Faye, 2019).

¹⁷ I am referring to (Hesiod, 1914) *Works and Days* 240-264, where Krónos is the fundamental physical phenomena, Zeus, the son of Krónos is the "crossroads" of events, which the *thémis/fas* shows/says, and Δίκη, Διὸς ἐκγεγαυῖα (256), Dikè, the daughter of Zeus is what influences Zeus' actions.

¹⁸ I take "man" in quotation marks because later on I clarify this temporary name and replace it with *ánthrōpos*.

¹⁹ See (McNulty, 2016).

²⁰ Eimí (εἶμί, verb), exist, be; ἔσθι (ἔσθι, participle, noun) the things which actually exist, the present, reality.

René Descartes based his philosophy on the truth: “I think, therefore I am.”²¹ The Latin *cōgitō*, “I think/ponder/visualize,” determines the context of the proposition “I am, I exist... necessarily is true.”²² As a result, the proposition “I (man) exist/am” began to express events that happen that “prove the certainty of our existence”²³ and “show that this I which is thinking is an immaterial substance with no bodily element.”²⁴ Modern thought and the basis for contemporary “to reveal results in discussion” or “to think discursively” follow Descartes. In fact, they continue to manifest Hegel’s “to apprehend what is is the task of philosophy, because what is is reason.”²⁵ For example, it is the popular Bernardo Kastrup research.²⁶ Moreover, current hypotheses about Unidentified Anomalous Phenomena (UAP) “reflect activities of intelligent beings,”²⁷ i.e. understanding the physical system to which “man” belongs as “nature” and the activity of the mind.

However, if we take this history as a basis, human “nature” and “the greatest human value” are to exist/be (*eimi*) a physical system that mixes and “passes away, perishes, be destroyed” (*phtheirō*).²⁸ Because a physically pure and impurity-free system cannot have a seven million or a little over a million-year history in the 13.7 billion years of the evolutionary history of our universe. Such a story is inherent in a “nature” that cannot advance and protect its creative power, which the Greeks denoted by the verb *gígnomai*²⁹ and the noun *genesis*³⁰ derived from it. Such a “nature” comes to be (*gígnomai*) in the universe to cease to be (*phtheirō*), to mix.³¹

I am referring to the distinction between pure and mixed physical systems and their study in quantum mechanics. Specifically, understanding the physical system as a “property-oriented ontology” follows from an interpretation of quantum theory proposed by Carlo Rovelli and Andrea Oldofredi.³² Also, I take into account an alternative conception of quantum particles proposed by Dennis Dieks and Andrea Lubberdink. “One of its key consequences is that particles in quantum theory are not fundamental but emergent; another that once they have emerged, quantum particles are always physically distinguishable and thus possess a

²¹ Et remarquant que cette vérité, je pense, donc je suis, était si ferme et si assurée, que toutes les plus extravagantes suppositions des Sceptiques n’étaient pas capables de l’ébranler, je jugeai que je pouvais la recevoir sans scrupule pour le premier principe de la Philosophie que je cherchais (“Discourse on the Method,” 1637). “And as I observed that this truth, I think, therefore I am, was so certain and of such evidence that no ground of doubt, however extravagant, could be alleged by the Sceptics capable of shaking it, I concluded that I might, without scruple, accept it as the first principle of the philosophy of which I was in search.” Translated by Elizabeth S. Haldane and G.R.T. Ross (1911).

²² hoc pronuntiatum: Ego sum, Ego existo, quoties a me profertur, vel mente concipitur, necessario esse verum (Meditations on first philosophy, 1641). “this proposition: I am, I exist, whenever it is uttered by me, or conceived by the mind, necessarily is true.” Translated by Elizabeth S. Haldane and G.R.T. Ross (1911).

²³ (Descartes, 1991: 159).

²⁴ “I, on the other hand, use the argument to show that this I which is thinking is an immaterial substance with no bodily element” (Descartes, 1991: 159).

²⁵ (Hegel, 2001: 19).

²⁶ (Kastrup, 2019).

²⁷ See (Lomas, 2024).

²⁸ *Phtheirō* (φθείρω, verb), to pass away, perish, be destroyed.

²⁹ *Gígnomai* (γίγνομαι, verb) to come into being.

³⁰ *Génesis* (γένεσις, noun, from *gígnomai*) coming into being, production, generation.

³¹ Aristotle entitled one of his treatises “Περὶ Γενέσεως καὶ Φθοράς,” literally “On Coming to Be and Passing Away.”

³² (Oldofredi, 2021).

physically grounded identity.”³³ Laurie Ann Paul’s “mereological bundle theory” inspires and gives me confidence.³⁴

The difference between pure and mixed physical systems directs us to formalize and investigate human “nature” as a derivative (emergent) property or relation in planetary evolution. “Man” is primarily an emergent physical system characterized by unchanging (or ‘state-independent’) and changing (or ‘state-dependent’) properties. “In sum, this proposal suggests that physical systems in Relational Quantum Mechanics should be defined as mereological bundles of properties, where (i) the intrinsic properties characterizing a certain species of particles have constant values, (ii) the extrinsic qualities take definite values relative to particular observers, and (iii) not every observable defining a system can have a definite value in virtue of the contextual nature of the quantum formalism.”³⁵

“Man” has the first greatest unsolved problem to date, because he either still does not know his “nature” and consequently incorrectly identifies his history, or he actually comes to be (*gígnomai*) in order to cease to be (*phtheírō*). The truth “I think, therefore I am” and “this proposition: I am, I exist, whenever it is uttered by me, or conceived by the mind, necessarily is true”³⁶ is equivalent to identifying oneself as a mixed physical system that “exists/is (*eimi*)” doomed to “pass away, perish, be destroyed” (*phtheírō*) in an ever-changing universe.

The second unsolved problem is the current understanding of the history of intelligent beings and its coherence with Leibniz’s Principle of the Identity of Indiscernibles.³⁷

I want to draw attention to the famous article “Did the Ancient Greeks Have the Concept of Human Rights?” and expand the meanings that Myles Fredric Burnyeat sets out.³⁸ Burnyeat’s article draws attention to the difference between the emphases in Plato’s and Descartes’ philosophy and, consequently, between ancient and modern discursive thought.³⁹ In the *Laws* (*Nómoi*), Plato wrote, “Of all a man’s own belongings, the most divine is his *psukhē*,⁴⁰ since

³³ (Dieks & Lubberdink, 2022).

³⁴ (Paul, 2017).

³⁵ (Oldofredi, 2021).

³⁶ (Meditations on first philosophy, 1641).

³⁷ “The Identity of Indiscernibles is usually formulated as follows: if, for every property F, object x has F if and only if object y has F, then x is identical to y. Or in the notation of symbolic logic:
 $\forall F(Fx \leftrightarrow Fy) \rightarrow x=y$.

This formulation of the Principle is equivalent to the Dissimilarity of the Diverse as McTaggart called it, namely: if x and y are distinct then there is at least one property that x has and y does not, or vice versa.

The converse of the Principle, $x=y \rightarrow \forall F(Fx \leftrightarrow Fy)$, is called the Indiscernibility of Identicals. Sometimes the conjunction of both principles, rather than the Principle by itself, is known as Leibniz’s Law” (Forrest, 2020).

³⁸ (Burnyeat, 2012: 282-288).

³⁹ One example of a contemporary authoritative philosopher’s misunderstanding of Plato is admirably addressed in (Gonzalez, 2009).

⁴⁰ *Psukhē* (ψυχή, noun, from *psýchō*). Plato’s research was aimed at affirming the two main meanings of *psukhē*: (1) the *psukhē* is immortal, (ἀθάνατος ἂν ἡ ψυχή εἴη (*Meno* 86b)) and its nature differs from the nature of the body (*Phaedo* 115c-116a; *Phaedrus* 245c-249d; *Timaeus* 34c). (2) *Epistēmē* is stored in the *psukhē*, therefore to seek something (ζητεῖν ἄρα) and to know (τὸ μανθάνειν), in general, was called *anamimnēskō* (*Meno* 81d).

it is most his own.”⁴¹ “Thus it is that in charging men to honor their own *psukhē* next after the gods who rule and the secondary divinities, I am giving a right injunction.”⁴²

In the above article, Burnyeat emphasizes that ancient politics never put the individual first.⁴³ Moreover, it has claimed, “The ultimate reason why we should respect each other’s rights is because justice is an essential part of our own happiness.”⁴⁴ It follows that “giving honor to their own *psukhē*”⁴⁵ does not at all imply anthropocentrism, i.e., “puts the individual first.” At the same time, the first principle of Descartes’ philosophy and “the proposition: I am, I exist, whenever it is uttered by me, or conceived by the mind, necessarily is true,”⁴⁶ assert and define “the individual first.” In Descartes’ philosophy, reason is above everything else.

In essence, Burnyeat demonstrates the “reversal” in understanding “What is equal?” that has occurred in modern thought. As a result, contemporary thought and the science of jurisprudence clearly understand that “Rights belong to individuals and bring benefit to them. Duties are imposed on individuals and restrict their freedom. So to take rights as basic and derive duties from them, instead of the other way round, is to take individuals as the prime beneficiaries of the civil order – all individuals equally.”⁴⁷

At the same time, Burnyeat rightly concluded, “The negative aim was as important as the positive”: rights should not be more important than duties.⁴⁸

Thus, the second unsolved problem to date is that “man” discursively thinks through Unidentified Anomalous Phenomena (UAP), including extraterrestrial civilizations,⁴⁹ and

⁴¹ πάντων γὰρ τῶν αὐτοῦ κτημάτων μετὰ θεοῦς ψυχῆ θεϊότατον, οἰκειότατον ὄν (*Laws* 5.726a3). Translated by R.G. Bury.

⁴² οὕτω δὴ τὴν αὐτοῦ ψυχὴν μετὰ θεοῦς ὄντας δεσπότας καὶ τοὺς τούτοις ἐπομένους τιμᾶν δεῖν λέγαν δευτέραν, ὀρθῶς παρακελεύομαι (*Laws* 5.726a6-5.727a1-2). Translated by R.G. Bury.

⁴³ “But the idea lived on, and because it lived on our politics puts the individual first in a way that ancient politics did not. The difficulty is not that the statement just quoted from the Declaration of Rights could not be translated into ancient Greek. It could. But it would sound strange and pointless in a world which never seriously challenged the institution of slavery” (Burnyeat, 2012: 288).

⁴⁴ (Burnyeat, 2012: 287) with modification. “From a modern point of view, this is a remarkably idealistic conception. It supposes that a shared concern for virtue and justice can be motive enough for the members of a social community to live harmoniously together. In the modern world, we have grown used to the idea that the great problem of political community is how to cope with the fact that people have different values and incompatible conceptions of the right way to live. It was for such a world, when religious and political dissension was particularly threatening, that the concept of rights came to occupy a central place in political thought” (Burnyeat, 2012: 287).

⁴⁵ τιμῶν τὴν αὐτοῦ ψυχὴν (*Laws* 5.727b6), where the verb “*timáō* – properly, *assign value* (give honor), as it reflects the *personal* esteem (value, preciousness) attached to it by the *beholder*” (Thayer, 1995).

⁴⁶ hoc pronuntiatum: Ego sum, Ego existo, quoties a me profertur, vel mente concipitur, necessario esse verum. (*Meditations on First Philosophy*, 1641). Translated by Elizabeth S. Haldane and G.R.T. Ross (1911).

⁴⁷ (Burnyeat, 2012: 287).

⁴⁸ “The negative aim was as important as the positive. There had earlier been a vote on whether a declaration of rights should be accompanied by a declaration of duties. ‘If a declaration is necessary’, said the Bishop of Chartres on 3 August, ‘there is a pitfall to avoid. There is a risk of awakening egoism and pride. The flattering expression of *rights* must be accompanied by *duties as a corrective*.’ The opposition replied that duties were simply the corollary of rights and so needed no explicit declaration of their own. The opposition won. The demand for a declaration of duties was defeated by 570 votes to 433: not a huge majority, but enough to ensure that in the new social order rights would be prior to duties” (Burnyeat, 2012: 287-288).

⁴⁹ (Lomas, 2024).

consequently, he identifies them as equal physical systems. At the same time, “man” does not discern the unchanging (or ‘state-independent’) properties of his physical system. Whereas it is the unchanging properties of the physical system that manifest the right and duty of a few equals, including “man,” to have a finite number of degrees of freedom in the “habitual” manner (*dikēn*)⁵⁰ of existing/being (*eimí*). It is the unchanging properties that unite and direct equals “to move (work) together as *one*,” in the yoke,⁵¹ so that in the final result, the physical system ever conforms to Leibniz’s Principle of the Identity of Indiscernibles.

Unchanging properties constrain and oblige a few equals in a physical system to fulfill an individual cluster of predicative changeability always and only in a particular way/manner (*trópos*).⁵² “Man” does not know his unchanging properties, so he cannot identify what is equal to him. Moreover, he does not know his duties, which unchanging properties generate for all equal “participants” of the physical system.

At the same time, a history of at least 13.8 billion years, including the three thousand years of written history we have about man, Earth’s evolution, and the chronology of the universe, always points to one condition. Namely, something physically real and consistent with Leibniz’s Principle of the Identity of Indiscernibles is a physical system that “does not drink more than the measure” so as not to mix, “to pass away, perish, be destroyed” (*phtheirō*).⁵³ Its “habitual” manner (*dikēn*) is the particular “measure” (*métron*).⁵⁴ Where the measure, *métron*, is “not “measurement,” but “moderation” (Lat. *modus*, *modestus*) – designed to restore order in a sick body (Lat. *medeor* ‘care for,’ *medicus*), in the universe (Hom. *Zeús (Idēthen) medéōn*, “Zeus the moderator”), in human affairs, including the most serious like war, or everyday things like a meal.”⁵⁵

The third unsolved problem is the current understanding of human “nature” and its coherence with ““the formula of normality,” prescribing what must be conformed to”⁵⁶ and

⁵⁰ δίκην (from *dikē*), in the manner of (Liddell & Scott, 1940). “The “habitual” manner is in reality an obligation of nature or convention” (Benveniste, 1973: 559).

⁵¹ The meaning of the Greek ζυγός, “properly, a yoke; a wooden bar placed over the neck of a *pair* of animals so they can pull *together*; (figuratively) what *unites (joins)* two people to move (work) together as *one*” (Thayer, 1995).

⁵² Τρόπος (τρόπος, noun, from τρέπω, turning, adopting a new manner), a new direction from taking a turn or adopting a new way/manner (Thayer, 1995).

⁵³ μέτρον μὲν οὖν τι τοῦ ὕδατος πᾶσιν ἀναγκαῖον εἶναι πιεῖν, τοὺς δὲ φρονήσει μὴ σφζομένους πλέον πίνειν τοῦ μέτρου: τὸν δὲ ἀεὶ πίνοντα πάντων ἐπιλανθάνεσθαι (*Republic* 10.621a5-b1). “They were all required to drink a measure of the water, and those who were not saved by their good sense drank more than the measure, and each one as he drank forgot all things.” Translated by Paul Shorey

⁵⁴ Μέτρον (μέτρον, noun), “that by which anything is measured” (Liddell & Scott, 1940); “a *measure* (the actual measure *itself*); (figuratively) the *basis* for determining what is *enough* (or *not enough*), what is *fair* (or *not fair*), etc.” (Thayer, 1995).

⁵⁵ “In historical times the root **med-* designated a great variety of different things: “govern,” “think,” “care for,” “measure.” The primary meaning cannot be determined simply by reducing all these to a vague common denominator nor by a confused agglomeration of the historically attested senses. It can be defined as “measure” – not “measurement,” but “moderation” (Lat. *modus*, *modestus*) – designed to restore order in a sick body (Lat. *medeor* ‘care for’, *medicus*), in the universe (Hom. *Zeús (Idēthen) medéōn* ‘Zeus the moderator’), in human affairs, including the most serious like war, or everyday things like a meal” (Benveniste, 1973: 576).

⁵⁶ “Thanks to Iranian and Indic we are in a position to penetrate into the prehistory of the Latin word *ius*. The Indo-European word **yous* meant “the state of regularity, of the normality required by the rules of ritual.” This state assumes the double aspect in Latin, which we have just distinguished in

what makes us happy. I am referring to the meanings of the changing (or ‘state-dependent’) properties in the “habitual” manner (*dikēn*) of a particular physical system. These are what form the phenomenon we call “happiness, well-being, outward prosperity,” i.e., *eudaimonia*.⁵⁷ The changing properties determine what “man” as a physical system “must,” “is obliged to,” and “can” realistically do, and what will make “their possessor happy (*eudaimōn*), to the farthest possible limit of human happiness.”⁵⁸

Tyler J. VanderWeele⁵⁹ and the Human Flourishing Program at Harvard’s Institute for Quantitative Social Science sufficiently reveal the measurement approach to human flourishing and the contemporary goals “to study and promote human flourishing, and to develop systematic approaches to the synthesis of knowledge across disciplines.”⁶⁰

However, I want to point out that in antiquity, “happiness, well-being, outward prosperity” (*eudaimonia*) was understood differently. In Plato’s dialogues, the “happy life” is to pass through the present into the past in order to grasp and hold one’s “base, foundation” (*thémethla*) and the only rightful (*themitós*) for one’s physical system. The unified meanings of the Greco-Latin *thémis/fas* concept,⁶¹ their history, and fertility in common Indo-European, on the one hand, “are close to that of *thémethla* (in Homer *themēilia*), which is a building term meaning “base, foundation.”⁶² On the other hand, “If we look for a word corresponding to *thémis* which has the same sense, we find it in the derived neuter in *-man* made from the same root in Indo-Iranian: this is *dhāman* ‘law,’ the precise sense of which is, within the order prescribed by Mithra and Varuna, an ordinance relating to the house and to the family.”⁶³ Thus, “happiness, well-being, outward prosperity” (*eudaimonia*) was discursively thought out in antiquity as “to come to know through oneself all unmixed/pure (*eilikrinēs*).”⁶⁴ Where unmixed/pure (*eilikrinēs*)⁶⁵ is the “undeniable reality” that can only be found in the past of one’s physical system.

Unconcealed, equal to *alēthēs* and the laws that determine the “habitual” manner (*dikēn*), customs, i.e. the true history of the physical system, its unchanging and changing properties, are all in our past, not our future. For this reason, the Greeks understood a happy life as the property of holding and purifying equal to *alēthēs* (i.e., *phūsis*, “nature”) in the current realities as far as possible.

Indo-Iranian. The idea of *ius* admits of these two conditions. One is the factual situation, denoted by the derived adjective *iustus* in the legal expressions *iustae nuptiae* ‘lawful marriage’, *iusta uxor* ‘legitimate wife’, that is, “conforming to the state of *ius*.” The other is implied in the expression *ius dicere*. Here *ius* denotes “the formula of normality,” prescribing what must be conformed to. Such is the foundation of the idea of “law” in Rome” (Benveniste, 1973: 564).

⁵⁷ *Eudaimōnia* (εὐδαιμονία, noun), happiness, well-being, outward prosperity, to be happy, in the sense of living a good life, etc. In understanding ancient thinkers, *eudaimōnia* meant the quality of life deserving respect, approval, and imitation in society.

⁵⁸ (*Phaedrus* 277a1-3). Translated by Harold N. Fowler.

⁵⁹ (VanderWeele, 2017).

⁶⁰ <https://hfh.fas.harvard.edu/>

⁶¹ “A further point which may be noted is that just as *dikē* contrasts with *thémis* in referring to human as opposed to divine law, so *ius* is opposed to that which the Romans called *fas*” (Benveniste, 1973: 561).

⁶² (Benveniste, 1973: 549).

⁶³ (Benveniste, 1973: 550).

⁶⁴ γνωσόμεθα δι’ ἡμῶν ἑαυτῶν πᾶν τὸ εἰλικρινές (*Phaedo* 67a7-b1).

⁶⁵ *Eilikrinēs* (εἰλικρινής, adjective; from *heilē*, “shining of the sun” and */krystallízō*, “to judge”), rightly judged because seen in full light (Thayer, 1995); unmixed, without alloy, pure. See (*Philebus* 52d9).

Tyler J. VanderWeele is absolutely right “that the family, work, education, and religious community are important determinants of various aspects of human flourishing.”⁶⁶ However, he aims to study happiness in the present, whereas Plato’s *Republic* and *Laws* aim to explore the past, i.e., the “roots” of happiness. Happiness is rooted in understanding the past and especially what is equal. Happiness is a certain peak in the past at which the “gift of second sight” is revealed. As a result, “a person knows the past as if he or she had been present”⁶⁷ and uses this knowledge to realize particular rights and duties in the present.

Thus, the third unsolved problem to date is that “man” discursively thinks through local happiness, “right here, right now.” At the same time, real equals, whom we identify as Unidentified Anomalous Phenomena (UAP), will offer us “happiness, well-being, outward prosperity” (*eudaimonia*) as an equal in a physical system that has a history of perhaps billions of years. The modern “man” does not understand at all how to “move (work) together as *one*” in the yoke of the physical system in order to exist/be (*eimi*) happy together with other equals in an ever-changing universe.

This is why our investigation goes through modern philosophy and science to the Academy, Plato, and on into the past. We have three fundamental questions to think through discursively:

The first and central question is:

What is “man” as the physical system?

The second question is the question of the unchanging properties of this physical system:

What is equal to “man” as the physical system?

The third question is a question about the changing properties of this physical system:

What is “happiness, well-being, outward prosperity” (*eudaimonia*) for “man” as the physical system?

The questions posed do not imply answers. It is the “eternal” cyclical renewal of the paradigm of “man” as an emergent physical system. The paradigm, on the one hand, helps to find a way out of the impasse and go through the view of “Me” and “my own *psukhē*” to begin an inquiry of “What is equal?” i.e. “Them.” On the other hand, the investigation of “What is equal?” is conducted only in order to clean up the personal guiding perspective and “make “Me” *eudaimōn*” but not “Them.” Fundamentally, the *eudaimōn* (happy) is always and only the one who ever practises his own *ēthos* and never “Theirs.” Where the concept of *ēthos* – “usage prescribed by law, institute, prescription, rite”⁶⁸ – produces the meanings of *ēthos*, “familiar morals,” referring to daily *life-style* (moral *habits*, behavioral *patterns*).⁶⁹

It should be stressed that the *ēthos* concept and its inflection – the adjective *ēthikós* (of or for morals, ethical, moral) and the noun *ēthiké* (ethic) – have a rich history of meaning

⁶⁶ (VanderWeele, 2017: 8153).

⁶⁷ (Benveniste, 1973: 771).

⁶⁸ (Thayer, 1995).

⁶⁹ (Thayer, 1995).

development.⁷⁰ In Plato's *Laws*, *ēthos* defined an accustomed place and a custom as the frequent repetition of the same act, a way of acting common to many.⁷¹ *Ēthos* is "personal characteristic (custom), which is determined by the habitual action (the power of habit)" or literally every *ēthos* (an accustomed place) *diá* (through) *éthos* (custom, habit).⁷² In this case, *ēthos* and, as a result, *ēthikē* (ethics) are derived words with derived meanings from *éthos*,⁷³ which in turn is equivalent to the meanings "in the "habitual" manner of" (*dikēn*).

What is "man" as the physical system?

In the threefold scheme of philosophy inherited from Plato,⁷⁴ it was ethics that was thought out as a way/manner (*trópos*) to clean and hold the "base, foundation" (*thémethla*) in order to practise the unmixed/pure (*eilikrinēs*) and consequently the only rightful (*themitós*).

We go through the current understanding of ethics as "the study of what is morally right and what is not"⁷⁵ or "moral principles that control or influence a person's behavior."⁷⁶ We begin to ascend into the past to the top overlooking *éthos* and "come to know through ourselves" "What is "man" as the physical system?" or otherwise "What is the personal guiding perspective for the derivative (emergent) property or relation now called 'man'?"

Our ascension is based on knowledge and factual accuracy,⁷⁷ so we go through the search for a name for "man" "in accordance with our own reality."⁷⁸ We leave behind the current common concepts of "man," "people," "human being," "intelligent beings," and the like

⁷⁰ *Ēthos* (ἦθος, noun, from *éthos*), an accustomed place: hence, in the plural, haunts or abodes of animals; of the abodes of men (Liddell & Scott, 1940). Aristot. Nic. Eth. 1103a17: ἡ δὲ ἠθικὴ ἀρετὴ ἐξ ἔθους περιγίνεται, ὅθεν καὶ τοῦνομα ἔσχηκε μικρὸν παρεγκλίνον ἀπὸ τοῦ ἔθους, "ethical virtue is the result of habit, and its name 'ethical' is also derived from 'ethos' (habit)." Translated by R.G. Bury.

⁷¹ (*Laws* 9.865e2-3).

⁷² τὸ πᾶν ἦθος διὰ ἔθους (*Laws* 7.792e2), "personal characteristic" (custom), which is determined by the habitual action (the power of habit)" (Liddell & Scott, 1940).

⁷³ *Éthos* (ἔθος, noun), custom, habit.

⁷⁴ "...a threefold scheme of philosophy inherited from Plato: one division dealt with conduct and morals, the second with the secrets of nature, the third with dialectic and with judgement of truth and falsehood, correctness and incorrectness, consistency and inconsistency, in rhetorical discourse" Fuit ergo iam accepta a Platone philosophandi ratio triplex, una de vita et moribus, altera de natura et rebus occultis, tertia de disserendo et quid verum quid falsum quid rectum in oratione pravumve quid consentiens quid repugnet iudicando. [p. 9] (Cicero, 1933: 1.19). Translated by H. Rackham (1933). See (Horky, 2020: 171-181).

⁷⁵ <https://dictionary.cambridge.org/dictionary/english/ethics?q=+Ethics>

⁷⁶ <https://www.oxfordlearnersdictionaries.com/definition/english/ethic?q=ethics>

⁷⁷ My duty as "director" of the research centre established at Guangdong University of Petrochemical Technology (Maoming, Guangdong, China) required me to review the various research projects the centre funded. They were entirely unrelated to philosophy but always focused on various aspects of "man" and "human being." All studies were Q1 and Q2 scientific journal level, and I am grateful to the author teams for expanding my understanding of the guiding measure for "man."

⁷⁸ δῆλον δὲ ὅτι αὐτὰ αὐτῶν οὐσίαν ἔχοντά τινα βεβαίον ἐστὶ τὰ πράγματα, οὐ πρὸς ἡμᾶς οὐδὲ ὑφ' ἡμῶν ἐλκόμενα ἄνω καὶ κάτω τῷ ἡμετέρῳ φαντάσματι, ἀλλὰ καθ' αὐτὰ πρὸς τὴν αὐτῶν οὐσίαν ἔχοντα ἢ περ πέφυκεν (*Cratylus* 386d12-e3), "it is clear that things have some fixed reality (αὐτὰ αὐτῶν οὐσίαν) of their own, not in relation to us nor caused by us; they do not vary, swaying one way and another by our fancy, but exist/are (*eimi*) of themselves in relation to their own reality (αὐτῶν οὐσίαν) imposed by *phúsis* (πέφυκεν)." Translated by Harold N. Fowler with modification.

and come to know the Latin *homō*. In modern science, the *homō* concept underlies the two fundamental terms: Hominidae and hominids,⁷⁹ and of course Homo Sapiens.

Moving on, we find that the Latin *homō* was preceded by the Greek concept *ánthrōpos* with a rich history of meaning development. This history is represented in numerous written sources that have survived to our times.⁸⁰ Through the *ánthrōpos* concept, we go through the texts of the Bible⁸¹ to Plato's dialogues⁸² and further into the past. We clarify the indigenous name for "man" as a physical system. Henceforth, we lawfully (*nomimós*)⁸³ call this derivative (emergent) property or relation *ánthrōpos* and not "man."

More important, however, is another observed fact. In written history, which we now hold, we are surprised to discover that contemporary studies of people and society do not refute the earliest written sources in which *ánthrōpos* are investigated and which we can evaluate. They merely make their contents, meaning, and scope more precise. When Kieran McNulty, a professor of anthropology, writes in *Nature Education*, "Many researchers now place all species of great ape and human within a single family, Hominidae – making them all proper "hominids,""⁸⁴ she is referring to the same "base, foundation" (*thémethla*) on which Protagoras may have argued that "*ánthrōpos* exists/is (*eimi*) the *métron*"⁸⁵ and Plato "thought discursively" (*dialégesthai*) "Therefore whatever is *ánthrōpos*?"⁸⁶

My point is that the reasoning of modern scholars correlates with the ancient postulates that equal to *alēthēs* in the history of *ánthrōpos* and, consequently, in his "nature" is the *psukhē* and *noûs*.⁸⁷ "...and he that surmises otherwise concerning the *psukhē* knows not that in it he possesses, and neglects, a thing most admirable."⁸⁸ In the *Alcibiades*, Socrates asks,

⁷⁹ "Traditionally, only human ancestors were placed in the family Hominidae (and thereby referred to as hominids)" (McNulty, 2016).

⁸⁰ <https://gregoriusworld.blog/2018/02/28/> Note that the Greeks used other words in order to clarify the intended meaning for "people". For example, *dēmos* (δῆμος) and *laós* (λαός) (Benveniste, 1973: 537-538). "*éthnos* (ἔθνος) is not solely used of men but also of animals, such as bees" (Benveniste, 1973: 537).

⁸¹ "Universally, with reference to the genus or nature, without distinction of sex, a human being, whether male or female: ὅτι ἐγεννήθη ἄνθρωπος εἰς τὸν κόσμον (John 16:21)" (Thayer, 1995).

⁸² "The name "ánthrōpos" indicates that the other animals do not examine, or consider, or look up at (*ἀναθρεῖ*) any of the things that they see, but *ánthrōpos* has no sooner seen – that is, ὅπως – than he looks up at and considers that which he has seen. Therefore of all the animals *ánthrōpos* alone is rightly called "ánthrōpos," because he looks up at (*ἀναθρεῖ*) what he has seen (*ὅπως*)" (*Cratylus* 399c2-6). Translated by Harold N. Fowler.

⁸³ Adverb from a derivative of *nómos*; legitimately (specially, agreeably to the rules of the lists) – lawfully (Thayer, 1995). "There are also *nomima* (a term which has no directly corresponding English word), matters which are too specific to legislate, but are taken very seriously by society. In *Kallipolis* the rulers will respect *nomima* such as courteous manners of the young to the old, appropriate fashions in clothes and haircuts and the like. Learning these socially sanctioned kinds of behaviour is an important part of their education (*Republic* 425a7–b5, 537d1–3)" (Annas, 2017: 12).

⁸⁴ (McNulty, 2016).

⁸⁵ 'πάντων χρημάτων' μέτρον εἶναι ἄνθρωπον (*Cratylus* 385e5-386a1); φησὶ γάρ που 'πάντων χρημάτων μέτρον' ἄνθρωπον εἶναι (*Theaetetus* 152a2-3).

⁸⁶ τί ποτ' οὖν ὁ ἄνθρωπος; (*Alcibiades* 1 129e17).

⁸⁷ *Noûs* (νοῦς, noun; contracted form from *Nóos* (νόος)), mind, as employed in perceiving and thinking; an act of mind (thought) (Liddell & Scott, 1940).

⁸⁸ ἀλλ' ὁ περὶ ψυχῆς ἄλλως δοξάζων ἀγνοεῖ ὡς θαυμαστοῦ τούτου κτήματος ἀμελεῖ (*Laws* 5.727e2-3). Translated by R.G. Bury.

“Therefore whatever is *ánthrōpos*?”⁸⁹ and answers, “either *ánthrōpos* exists/is (*eimí*) nothing at all, or if something, he turns out to be nothing else than *psukhē*.”⁹⁰

Going back in time helps us to go through the variety of terms and their meanings and combine three thousand years of written history about *ánthrōpos*. A discursive analysis of the history of *ánthrōpos* leads to an important conclusion. Namely, both modern scientists and earlier thinkers discern and come to know *ánthrōpos* only as the proposition “*Psukhē* exists/is (*eimí*).”⁹¹

Thus, our ascent into “What is “man” as the physical system?” yields two important results. First, we “come to know through ourselves” the history of *ánthrōpos* as meanings that are asserted and defined by the proposition “*Psukhē* exists/is (*eimí*).” Now we actually discern the personal guiding perspective for *ánthrōpos* (Formula 1)

(1) *Psukhē* exists/is (*eimí*) in the “habitual” manner (*dikēn*)

In essence, we have become the “witness” of past events. In real time, we gaze on (contemplate) the “destiny and fate” of *ánthrōpos* as a derivative (emergent) property or relation and its approximately 7 million years of history in the 4.54 billion years of Earth history.

Equally important is the second result of our ascension. I call it the *ánthrōpos* paradigm. The Platonic corpus and Greek-English lexicons of Henry George Liddell and Robert Scott, Joseph Thayer, James Strong, etc., helped us to cleanse an authoritative *lógos*. “...as Socrates says in the *Phaedo* (89b9–c1), the only death that he would mourn as a genuine extinction is the death of the *lógos* – if it should happen that the *lógos* cannot be resurrected (*anabiōnai*: 89b10). Socratic *dialogesthai* is vital to the words of Socrates, revitalizing them every time that the reader rereads them.”⁹²

Lógos of Socrates and Plato “are not fruitless, but yield seed from which there spring up in other minds other *lógos* capable of continuing the process for ever, and which make their possessor happy (*eudaimōn*), to the farthest possible limit of human happiness.”⁹³ They acquire extraordinary linguistic significance because they unite modern studies of *ánthrōpos* with prophetic visions and knowledge of the past. Most importantly, however, Plato’s language and the Bible show “how to go on and how to get beyond an impasse”⁹⁴ to the unconcealed (equal to *alēthēs*), namely, to the emergent physical system that *ánthrōpos* represents.

In other words, the second result of our ascension is the mastery of fundamental linguistic concepts and an abstract tool that allows us to discursively think through “What is *ánthrōpos* as an emergent physical system?” We “come to know through ourselves” the authoritative

⁸⁹ (*Alcibiades* 1 129e17).

⁹⁰ ἢ εἴπερ τί ἐστι, μηδὲν ἄλλο τὸν ἄνθρωπον συμβαίνειν ἢ ψυχὴν (*Alcibiades* 1 130c3-4). Translated by W.R.M. Lamb.

⁹¹ “(§106) We next laid down the fundamental principle that we must never try to define the meaning of a word in isolation, but only as it is used in the context of a proposition; only by adhering to this can we, as I believe, avoid a physical view of number without slipping into a psychological view of it” (Gottlob Frege, 1950).

⁹² (Nagy, 2002: 32).

⁹³ (*Phaedrus* 277a1-3). Translated by Harold N. Fowler.

⁹⁴ “A *paradigm* indicates how to go on, how to begin an enquiry or how to get beyond an impasse” (Gill, 2010: 176).

lógos, which itself makes it possible to “exhibit side by side, to make comparisons”⁹⁵ and in this way/manner (*trópos*) to hold the personal guiding perspective even beyond the 7 million year history of *ánthrōpos*.

We go beyond Formula 1 and begin to discursively think through the *éthos* as the “habitual” manner (*dikēn*) of a particular emergent system.

Our attention is focused on the concepts of *psukhē* and *noûs* because, on the one hand, they ground the context of the proposition “*Psukhē* exists/is (*eimi*).” We remember that reality “is to be learned and sought for, not from names but much better through themselves,”⁹⁶ and moreover, we are guided by Frege’s three principles.⁹⁷ On the other hand, Plato wrote that it is the *noûs* and *psukhē* that put into order and have being.⁹⁸

The dialectical way to follow (*méthodos*) leads us through the current understanding of the *psukhē* and *noûs* back to their original values. We again discern *psukhē* as “breath, life” rather than “the human soul, mind, or spirit” in the broad sense and “the emergence of the cerebral subject,”⁹⁹ “psychic,” “mentality” as certain highly specialized knowledge in the field of psychology and education. At the same time, the *noûs* is gradually cleared up to the original meaning, namely from Latin *intellēctus* and *intellegentia*, then “the God-given capacity of each person to *think* (reason),”¹⁰⁰ and finally, to the “act of mind, thought.”¹⁰¹

Thus, we “come to know through ourselves” the *psukhē* and *noûs* as the derivative (emergent) properties or relations which, on the one hand, form the *éthos* but, on the other hand, help us to discern the history of a particular physical system, its unchanging and changing properties.

We go through the various fields of knowledge that study *psukhē* and *noûs*. We come to know the mathematical and conceptual framework, which asserts and defines “Me” and “my own *psukhē*” as the “habitual” manner (*dikēn*). We ascend higher, and a resource of accumulated knowledge and analytical tools reveals amazing views of what is equal, of the surrounding “Them.” We gaze on (contemplate) (*theáomai*) molecular “fields” and “particles” and the history of micro and macromolecular compounds (polymers).

We discern in planetary evolution the *hēgemonía*¹⁰² of the molecular measure and a few molecular state-spaces that “move (work) together as *one*” to exist/be (*eimi*) complete on their own as far as possible. From this, we conclude that it is the history of the “molecular” manner (*dikēn*) that produces the *éthos* and the personal guiding perspective for *ánthrōpos*.

⁹⁵ These are the senses of the verb *παράδεικνυμι* (Liddell & Scott, 1940). The noun “paradigm” is its derivative.

⁹⁶ “How realities (*ὄντα*) are to be learned or discovered is perhaps too great a question for you or me to determine; but it is worth while to have reached even this conclusion, that they are to be learned (*ginōskō*) and sought for, not from names but much better through themselves than through names” (*Cratylus* 439b6-9). Translated by Harold N. Fowler.

⁹⁷ “P1: Always to separate sharply the psychological from the logical, the subjective from the objective; P2: Never to ask for the meaning of a word in isolation, but only in the context of a proposition; P3: Never to lose sight of the distinction between concept and object” (Gottlob Frege, 1950).

⁹⁸ *νοῦν καὶ ψυχὴν εἶναι τὴν διακοσμοῦσαν καὶ ἔχουσαν* (*Cratylus* 400a11-12).

⁹⁹ (Vidal, 2011).

¹⁰⁰ (Thayer, 1995).

¹⁰¹ (Liddell & Scott, 1940). *νοῦς ἐστὶν ὁ διακοσμῶν τε καὶ πάντων αἴτιος* (*Phaedo* 97c1-2), the *noûs* exists/is (*eimi*) to put into order/to ornament (*kosméō*) and causes all things.

¹⁰² *ἡγεμονία*, from *hēgemōn*, leading the way, going first (Liddell & Scott, 1940). *τῇ τῶν δυναστευόντων ἡγεμονίᾳ* (*Laws* 4.711c9).

The physical system “Zōē breathes/makes cool (*psýchō*)”

My argumentation for the “molecular” manner (*dikēn*) will be based on a conceptual understanding of Earth’s formation¹⁰³ and, in particular, of the lithosphere-cryosphere-hydrosphere-biosphere-noosphere chemical cycles.¹⁰⁴ Furthermore, I will refer to the emergent physical system, which “pulls together” equal (including *ánthrōpos*) based on the molecular measure as “the measure of all things” in the highest degree,¹⁰⁵ by the Greek noun *Zōē*¹⁰⁶ and capitalize it. The primary verb *záō*¹⁰⁷ has one meaning, “to live, be among the living, be alive (not lifeless, not dead).”¹⁰⁸ The noun *Zōē* is its derivative.

I postulate that the proposition “*Zōē* breathes/makes cool (*psýchō*)” asserts and defines the particular emergent system based on the molecular geometry and electron-group geometry. The *Zōē* and *psýchō*¹⁰⁹ concepts that form the proposition are historically related. This relationship is most explored in the Bible texts,¹¹⁰ in which the nouns *zōē* and *psukhē* are used frequently and convey important information.¹¹¹ However, we are only interested in the history of the particular physical system. We discursively think through the emergent system “*Zōē* breathes/makes cool (*psýchō*)” and its “habitual” manner of (*dikēn*) advancing and protecting the *hēgemonía* of the molecular forces and measure, and consequently one’s own identity and individuality in the expanding universe.

Modern science is able to discern valence shell electron pair repulsion (VSEPR) and, therefore, understand and predict the geometry of molecules or ions in the hot universe. Molecular physics and molecular chemistry manifest molecular geometry (electron group geometry) as the basis for the “molecular” manner (*dikēn*) and hence for the particular emergent system we now refer to as “*Zōē* breathes/makes cool (*psýchō*).” Strictly speaking, molecular physics and molecular chemistry are exploring the “base, foundation” (*thēmethla*) on which micro and macromolecular systems¹¹² are built from elemental compositions.

We, in turn, discursively think through this “base, foundation” (*thēmethla*) as the history of the derivative (emergent) property or relation that “cools by blowing,” *psýchō*, “to breathe, blow, cool by blowing; passive, to be made or to grow cool or cold: tropically, of waning love.”¹¹³ We manifest by Plato’s *lógos* that the only rightful (*themitós*) and “customary,

¹⁰³ (Marsh, 2015; Menzies & Meer, 2018; Joseph, 2022).

¹⁰⁴ (Nutman et al., 2016).

¹⁰⁵ ὁ δὴ θεὸς ἡμῖν πάντων χρημάτων μέτρον ἄν εἴη μάλιστα (Laws 4.716c4-5). “In our eyes God will be “the measure of all things” in the highest degree.” Translated by R.G. Bury.

¹⁰⁶ *Zōē* (ζωή, noun, from *záō*), “living, i.e. one’s substance, property” (Liddell & Scott, 1940); “universally, life, i.e. the state of one who is possessed of vitality or is animate” (Thayer, 1995).

¹⁰⁷ *Záō* (ζάω, verb, from ζῶ (contr. fr. ζῶω), to live; comes from Proto-Indo-European *-wós (Creates adjectives from verb stems.), Proto-Indo-European *g^weihs-w-, Proto-Indo-European *g^wey-.

¹⁰⁸ (Thayer, 1995). See more detailed https://img.sermonindex.net/modules/articles/article_pdf.php?aid=34372

¹⁰⁹ *Psýchō* (ψύχω, verb), to breathe, blow, to make cool.

¹¹⁰ (Thayer, 1995).

¹¹¹ For example, <https://hermeneutics.stackexchange.com/questions/4388/what-is-the-difference-between-%CE%B6%CF%89%E1%BD%B4-and-%CF%88%CF%85%CF%87%E1%BD%B4> or https://img.sermonindex.net/modules/articles/article_pdf.php?aid=34372

¹¹² I use the terms of quantum mechanics and substitute “structure,” “form,” etc., used in molecular chemistry.

¹¹³ (Thayer, 1995). ψυγήσεται (*psygēsetai*), καὶ διὰ τὸ πληθυνθῆναι τὴν ἀνομίαν ψυγήσεται ἡ ἀγάπη τῶν πολλῶν; “And because iniquity shall abound the love of many shall wax cold” (Matthew 24: 12).

prescriptive” (*nómimos*)¹¹⁴ in the “molecular” manner (*dikēn*) is to hold atoms and to build from them the state-spaces of molecular systems, including molecular and physical states, molecular and physical quantities, molecular composition and molecular dynamics.

Analyzing and evaluating historical sources draw our attention to the shared connotations in the verbs *psýchō* and *pnēō*¹¹⁵ and their inflections, including the nouns *psukhē* and *pneūma*. Therefore, when we read about “soul” and “Holy Scripture”¹¹⁶ in modern sources, we distinguish the common meanings of the primary verbs: *psýchō*, “to breathe (voluntarily but gently),” and *pnēō* “which denotes properly a forcible respiration.” *Psýchō*, “to breathe (voluntarily but gently, thus differing on the one hand from *pnēō*, which denotes properly a forcible respiration; and on the other from the base of *aer*, which refers properly to an inanimate breeze), i.e. (by implication, of reduction of temperature by evaporation) to chill (figuratively) – wax cold.”¹¹⁷

We formalize the general context we find in Plato’s dialogues, the Bible, philosophical and religious exegesis, and modern sciences, including planetary geomorphology. As a result, we “come to know through ourselves” the history of “cooling breath”: gently and forcible simultaneously.¹¹⁸ We distinguish between “Me” and “Them” and the work of the molecular yoke that advances and protects the *hēgemonía* of molecular fields and particles in surface processes and landform development on planetary bodies.

Moreover, and just as important, we recognize the desire of *ánthrōpos* to openly and legally “imitate, follow” (*miméomai*)¹¹⁹ this history. It is clear to us that in both early and modern comparisons of terrestrial and extraterrestrial geologies and ideas of humanity’s colonization of space, the “habitual,” molecular manner of (*dikēn*) seeking equals in order to connect with the history of one’s physical system and become a new chapter in it is evident. The history of *ánthrōpos* is the growing and unstoppable desire to “pull together” molecular “fields” and “particles” to hold the peak molecular force and, at the same time, “to care for, attend to” (*epimeléomai*)¹²⁰ the molecular measure as “the measure of all things” in the highest degree.

The current understanding of the history of the physical system “*Zōé* breathes/makes cool (*psýchō*)” is limited by technological capacities in dealing with historical and forecast data. Therefore, we use the research results and analysis of the solar nebula.

¹¹⁴ *Nómimos* (νόμιμος, adjective, from *nómos*), conformable to custom, usage, or law (Liddell & Scott, 1940).

¹¹⁵ Πνέω, blow, of wind and air.

¹¹⁶ Noun *πνεῦμα*, *pneūma*. “Any of the above renderings (*spirit-Spirit, wind, breath*) of *pneūma* is always theoretically possible (*spirit, Spirit, wind, breath*). But when the attributive adjective (“holy”) is used, it always refers to the *Holy Spirit*. “*Spirit*” (“spirit”) is by far the most common translation (application) of *pneūma*” (Thayer, 1995).

¹¹⁷ (Strong’s Concordance, Greek Dictionary). <https://www.quoteskosmos.com/bible/bible-concordance/G5594.html#verses>

¹¹⁸ For example, *pnēō*, generally, draw breath, breathe: hence, live, II.17.447; οἱ πνέοντες, = οἱ ζῶντες (Liddell & Scott, 1940) and *psýchō*, breathe, blow; make cool or make cold (not necessarily by blowing); opp. θερμαίνω, Pl.*Phdr.*268b; Pass., grow cool or grow cold (Liddell & Scott, 1940).

¹¹⁹ *Miméomai* (μιμέομαι, verb), to imitate, in the meanings of an identification and a reproduction. See (Capra, 2015).

¹²⁰ *Epimeléomai* (ἐπιμελέομαι, verb, from ἐπί, fitting on, which intensifies μέλει, care for, take an interest in), to care for (physically or otherwise), attend to.

Modern stratigraphy¹²¹ investigates the emergent system “*Zōē* breathes/makes cool (*psýchō*)” as the history of a few equals in Earth’s evolution, but at the same time, it allows extrapolation of the knowledge gained to planetary evolution within the universe. For example, the study of glaciers on Mars¹²² helps to reconstruct Precambrian time on Earth and clearly identify unchanging and changing properties of the “*Zōē* breathes/makes cool (*psýchō*).” At the same time, the already-established properties of the *Zōē* and their *hēgemonía* in Earth’s evolution can rightly be considered universal. “Universal law is law by nature.”¹²³

Planetary geomorphology and the sciences that study molecular forces and measures reveal types and states of molecular systems that go far beyond the usual understanding of “living” systems.¹²⁴ Therefore, the concept “*Zōē*” in the proposition “*Zōē* breathes/makes cool (*psýchō*)” is more relevant than the term “Life.” It expresses the idea of molecular identity and individuality in an ever-changing universe in a clear and direct way.

For our study, it is sufficient to identify and consider three types of equals that “move (work) together as *one*.” The first type is the glacial and periglacial¹²⁵ (cold nonglacial) environments¹²⁶ or otherwise the state-spaces of the cryosphere. “In addition to glaciers and ice sheets, other

¹²¹ “Understanding how geology and geomorphology evolve in time and space is called stratigraphy. It describes the sequential order that different rocks, sediments, or landforms were formed, enabling wider insight into the processes that formed them, the evolution of palaeoenvironments, relative timing of events, and age” (Lee, 2018: 392).

¹²² “Present-day ice sheets consisting of water- and carbon-dioxide-ice exist at both poles on Mars, and smaller glaciers occupy a number of craters at latitudes >70 degrees North and South. Rapidly accruing observational evidence suggests, however, that the Martian surface was more extensively glaciated across all latitudes in the past” (Wagner, 2018: 527-528).

¹²³ “Universal law is law by nature. For there really is, as everyone to some extent divines, a natural justice and injustice that is common to all, even to those who have no association or covenant with each other. It is this that Sophocles’ Antigone evidently means when she says that the burial of Polyneices was a just act even though it was forbidden: she means that it was just by nature. Another example is what Empedocles says about not killing any living creature. This is not something that is just for some communities, unjust for others. It is, he says, “the law for all, whose writ runs throughout wide-ruling air and the immense light of the sun” (Burnyeat, 2012: 284).

¹²⁴ “the serious mistake is about believing that physical entities and human cognitive/conceptual entities would exchange the same kind of meaning. This is the same kind of mistake we committed when we believed that planet Earth was fixed at the center of the universe, which was then reduced to a mere celestial sphere with the stars attached to it. When we escaped this “Ptolemaic cave,” following the Copernican revolution, we accessed an incredibly wider and richer universe. Similarly, by escaping the “cave of our human-centered worldview,” following the “conceptuality revolution” (if it will turn out to be such), we might also access an incredibly deeper and richer reality, requiring us to learn not only new languages, but also the non-human semantics attached to them” (Aerts et al., 2020).

¹²⁵ “The term ‘periglacial’ describes terrain conditions, geomorphic processes and landforms that result from climates subject to prolonged and intense freezing conditions irrespective of proximity to glaciers. Periglacial environments are areas where landforms and geomorphic processes reflect the cumulative effects of cold subfreezing temperatures, cyclic freezing and thawing of sediments, and the volumetric expansion of soil moisture as it freezes. The defining criteria for periglacial environments include: (1) intense frost action, and/or (2) the presence of permafrost. Today, periglacial conditions affect up to 35% of the Earth’s land area and have its greatest presence in the northern hemisphere” (Pollard, 2018: 539).

¹²⁶ “As ice masses creep forward, or slowly retreat, surge into a proglacial lake, float as a tidewater glacier, or join an ice shelf, the margins of these ice bodies are in flux. Ice marginal conditions, therefore, are of immense importance since many sediments and landforms are associated with marginal environments and fluctuations” (Menzies & Meer, 2018: 9-10).

conditions that define an icehouse regime such as widespread sea ice, seasonal/perennial snow cover, and frozen ground (permafrost and ground ice) are also currently active. The area of the Earth's surface where water persists in a frozen state is called the cryosphere. The cryosphere includes all aspects of Earth's environment dominated by cold climate (both seasonal and perennial) and include places where snow, lake and river ice, sea ice, glaciers, ice caps, ice sheets, ice shelves, and icebergs as well as the various types of cryotic ground. The cryosphere concept provides a useful perspective because it includes both glacial and periglacial (cold nonglacial) systems."¹²⁷

"The Earth is essentially a glacial planet (icehouse) punctuated by periods of ameliorative conditions (greenhouse) similar to or occasionally warmer than the period we live in today."¹²⁸ However, at the same time, "the preserved record of glaciations suggests that frigid climatic conditions were extraordinary occurrences on the early Earth but became more common with time, so that it is probably reasonable to say that, on the grand scale, the surface of the planet has become cooler with time."¹²⁹

The modern understanding of the glacial and periglacial environments suggests that they are probably the main state-spaces in the early history of the emergent system "*Zōē* breathes/makes cool (*psychō*)."¹³⁰ Their formation and development peculiarities characterize the "molecular" manner (*dikēn*) as both a result and an active participant in planetary evolution, in particular, "astronomical, tectonic, and geochemical events."¹³¹ Large meteoroid impacts, on the one hand, and the larger-scale process of thermal convection within the mantle and core, on the other, cause crust and lithosphere dynamics, including magmatism, which "is perhaps the single most critical ingredient in molding and understanding planetary evolution."¹³² Studies of the Moon, Io, and Europa show different generations of magmatism and the results of its interaction with the cryosphere.¹³³ At the same time, it is important to note that the glacial and periglacial state-

¹²⁷ (Pollard, 2018: 537).

¹²⁸ (Menzies & Meer, 2018: 3). "Pleistocene glacial sediments cover today at least 30% of the Earth's continental landmasses, and an even greater area must be included when Pre-Pleistocene sediments ranging over vast areas of India, Australia, Africa and South America are considered" (Menzies & Meer, 2018: 4). "Until relatively recently this figure of 30% for Pleistocene sediments was accepted yet, today, perhaps approximately 60% would be a more accurate figure if glaciomarine sediments are included. These thick sediments lie over the ocean floors covering enormous parts of the northern and southern areas of the Atlantic and Pacific Oceans" (Menzies & Meer, 2018: 4).

¹²⁹ (Young, 2018: 19). "Widespread glaciations were unusual events in Earth history. There is rare evidence of glaciation during the long Archean Era and only two significant episodes, the Huronian and Cryogenian, near the beginning and end, respectively, of the Proterozoic Eon. The last 750 Ma of Earth history saw an increase in the frequency of glaciations, which included the Cryogenian, Ediacaran and two great Phanerozoic ice ages and several minor ones. In terms of great glaciations, the preserved record suggests that there was one in the first three billion years and at least four in the last 750 Ma" (Young, 2018: 19).

¹³⁰ (Menzies & Meer, 2018).

¹³¹ "The geologic record contains evidence of a planetary history that has seen the Earth's climate fluctuate on geological time scales between conditions that were much warmer than present and other periods when it was considerably colder. These fluctuations between 'greenhouse' and 'icehouse' conditions are the result of complex global and astronomical processes. During an icehouse interval, a combination of astronomical, tectonic, and geochemical events lead to global cooling and a subsequent accumulation of ice on land and in the oceans at higher latitudes and altitudes" (Pollard, 2018: 537).

¹³² (Marsh, 2015: 273).

¹³³ (Marsh, 2015).

spaces have been found on various planets, and their importance in planetary evolution and especially in their outcomes is considered a proven scientific fact.¹³⁴

The creation of carbon reservoirs and the flows between them, called the carbon cycle,¹³⁵ the lowering of the Earth's surface temperature,¹³⁶ and fractionation or differentiation, that is, "the major divisions of Earth and the vast spectrum of rock types, including, indirectly, metamorphic and sedimentary rocks,"¹³⁷ are the primary result of the wax cold.¹³⁸ The Earth's cryosphere breathes/makes cool (*psychō*).

I want to stress that the state-spaces of the cryosphere are "cooled by blowing" (*psychō*) in the literal sense of the word. "Glaciers and ice sheets are highly dynamic systems, "pulsing" or "oscillating" as they advance or retreat, leading to the repeated deformation both in front and beneath the evolving ice mass."¹³⁹ *Psychō* frequency differs from millions of years to "a few years, or even days."¹⁴⁰

In addition to the work described above, the glacial and periglacial state-spaces have influenced (i) the early atmosphere, in particular on the CO₂ content¹⁴¹ and the Great Oxidation Event,¹⁴² (ii) possibly on changes in the spin axis of the Earth (the high obliquity theory),¹⁴³

¹³⁴ (Marsh, 2015; Menzies & Meer, 2018; Joseph, 2022).

¹³⁵ (Hannah, 2015).

¹³⁶ "There is no completely satisfactory explanation for Earth's glaciations. Both extraterrestrial and terrestrial causes have been offered but both may have been important. Glacial epochs may be attributed to a combination of decreasing greenhouse gases (mainly CO₂) in the atmosphere and increasing solar radiation. It is suggested that glaciations may have been triggered by the cycle of amalgamation and dispersal of continental lithosphere – the supercontinental cycle" (Young, 2018: 22).

¹³⁷ "Once magma is produced, its temperature trajectory favors superheating and continued melting, and the magma takes on a life of its own with myriad secondary manifestations. One vital fundamental process is crystal growth and separation, commonly called fractionation or differentiation, which, in effect, distills magma, creating the major divisions of Earth and the vast spectrum of rock types, including, indirectly, metamorphic and sedimentary rocks" (Marsh, 2015: 274).

¹³⁸ Another meaning of *psychō* and its derivatives, which is used in some English Bible translations, is as follows (Thayer, 1995); <https://www.quoteskosmos.com/bible/bible-concordance/G5594.html>

139 (Phillips, 2018: 467). "This deformation occurs on a variety of scales, from the formation of delicate microscale structures (folds, faults, tectonic fabrics) which can only be examined under the microscope, to much larger, macroscale features in the order of 10s to 100s of metres across" (Phillips, 2018: 467).

¹⁴⁰ "However, whilst fold and thrust belts in crustal collision zones take millions of years to evolve, the timescales required for the formation of even the largest glacitectonic moraines is in the order of tens to hundreds of years. In fact, recent studies of contemporary glacial environments suggest that even relatively large thrust moraines may form within only a few years, or even days during the final stages of a glacier surge" (Phillips, 2018: 467).

¹⁴¹ (Young, 2018: 19-20), including sources cited in the publication.

¹⁴² "Thus the important transition that has come to be known as the Great Oxidation Event (Holland, 2006) appears to have taken place during deposition of the Huronian Supergroup" (Young, 2018: 28). "The Earth's first widespread glaciation is recorded in the Palaeoproterozoic Huronian Supergroup, which contains three glacial formations. The youngest of these is widely distributed in North America and possibly elsewhere in the world. The Huronian Glacial Event took place when the late Archean supercontinent, Kenorland, was breaking apart and may therefore be the first 'B-type' glaciation" (Young, 2018: 28).

¹⁴³ "Precambrian glacial deposits, with the possible exception of some in the late Ediacaran Period, appear to have formed from glaciers that reached sea level in low palaeolatitudes whereas younger glaciations are only known from deposits that formed in circum-polar latitudes. This conundrum has not been resolved but has been attributed by some to ice cover that extended from pole to pole (the snowball Earth hypothesis). Others have suggested that marked tilting of the Earth's spin axis, in the Precambrian, could have changed the distribution of annual solar energy, causing glaciations to occur preferentially at low latitudes" (Young, 2018: 23).

(iii) and consequently on the Milankovitch climate cyclicity.¹⁴⁴ The Milankovitch cycles and their understanding in modern research show dependence between the shape of Earth's orbit (eccentricity), the angle Earth's axis is tilted with respect to Earth's orbital plane (obliquity), and a change in the orientation of the rotational axis of an Earth's rotating (precession), on the one hand, and the dynamics of the Earth's cryosphere, on the other.¹⁴⁵ (iv) The cause-and-effect relationship between continent formation/decay and the Great Cryogenian Glaciations is also proven.¹⁴⁶ (v) Finally, the progress of terrestrial glacial and periglacial state-spaces created the basis of the Cambrian.

The *hēgemonía* of the cryosphere in Earth's evolution has created favourable conditions for the formation of biological environments or state-spaces of the biosphere.¹⁴⁷ At present, we observe the relationship between the state-spaces of the cryosphere and the biosphere and realize that this is a continuous and non-linear complication of unchanging and changing properties of the emergent system “*Zōē* breathes/makes cool (*psýchō*).” We observe the relationship between equals in the yoke.

The Greek noun *bíos*¹⁴⁸ is a synonym for the *Zōē*. It causes the widespread use of words with the root *bíos* in modern terminology and gives reason to speak authoritatively of “life” as “biological activity,”¹⁴⁹ “biological energy,” “biosphere,” etc. Moreover, “Biology” as the scientific study of *biological* life subordinates “Zoology”¹⁵⁰ and essentially demeans the root meanings of *Zōē*.¹⁵¹

¹⁴⁴ “These Milankovitch variations, named after the Serbian mathematician, their discoverer, are responsible for the cyclic climate changes that characterize the Quaternary and indeed much of Earth's history. One of the most critical ways in which the Milankovitch climate cyclicity is expressed is through the development of ‘Ice Ages’ or periods when glaciation extended across large areas of the Earth” (Ehlers et al., 2018: 77).

¹⁴⁵ (Joseph, 2022). “that the long-term, collective effects of changes in Earth's position relative to the Sun are a strong driver of Earth's long-term climate, and are responsible for triggering the beginning and end of glaciation periods (Ice Ages)” (Joseph, 2022).

¹⁴⁶ “Near the end of the Proterozoic Eon, during the Cryogenian Period, the Earth underwent two consecutive severe glaciations (Sturtian and Marinoan). Like the Huronian Glacial Event, they were B-type glaciations, heralding break-up of the great supercontinent, Rodinia” (Young, 2018: 34).

¹⁴⁷ “The recently defined Ediacaran Period extends from 635 to 541 Ma, which is taken as the age of the base of the Cambrian. It begins at the end of the second great Cryogenian glaciation and ends at the time when the widespread and prolific shelly metazoan fauna appears during what has been called the ‘Cambrian Explosion’. The Ediacaran Period was a time of great environmental change including several glacial episodes, at least one large meteorite impact, changes in the chemistry of the atmosphere and oceans, puzzling palaeomagnetic indicators that have been interpreted by some to reflect rapid true polar wander, and evolutionary changes that led to the burgeoning of the skeletonized metazoan fauna that went on to colonize the world” (Young, 2018: 34).

¹⁴⁸ Ancient Greek word βίος comes from Proto-Indo-European *g^weyh₃-, Proto-Indo-European – wós, and later Proto-Indo-European *g^wih₃wós, alive, living.

¹⁴⁹ For example, “biological activity is a major factor in Earth's chemical cycles, including facilitating CO₂ sequestration and providing climate feedbacks” (Nutman et al., 2016).

¹⁵⁰ Zoology is a branch of biology. The Greek noun ζῷον, an animal, living creature, is derived from the verb *záō*, I live, am alive (Thayer, 1995). Even in narrow meanings, *záō* denoted in the Greeks “of animal life, live, Hom. (v. infr.), etc.; also of plants, τὸ ζῆν κοινὸν εἶναι φαίνεται καὶ τοῖς φυτοῖς Arist. EN1097b33” (Liddell & Scott, 1940)

¹⁵¹ Even in narrow meanings, in the Greek, *zōē* denoted “of animal life, live, Hom. (v. infr.), etc.; also of plants, τὸ ζῆν κοινὸν εἶναι φαίνεται καὶ τοῖς φυτοῖς Arist. EN1097b33” (Liddell & Scott, 1940). Bultmann begins his treatment of *záō* by saying, “Zoe denotes in Greek the physical vitality of organic

However, I want to point out that the term Biology only came into use in the early 19th century,¹⁵² but most importantly, the further development of its meanings fails to take into account the distinction between the nouns *Zōē* and *bios*. This distinction is proven in authoritative dictionaries,¹⁵³ the Bible,¹⁵⁴ and Plato's dialogues.¹⁵⁵

The distinction between *Zōē* and *bios* is fully asserted and defined by the proposition “*Zōē* breathes/makes cool (*psychō*).” Specifically, the concept of *Zōē* expresses “life” as the identity and individuality of a particular emergent system. It is the history of molecular measure and few molecular equals, in which a combination between organic and inorganic molecules represents “life” as *gígnomai* rather than *phtheirō* (not lifeless). The history of the *Zōē* is the history of the emergent system “*Zōē* breathes/makes cool (*psychō*),” which can be described by Formula 2:

(2) *Zōē* breathes/makes cool (*psychō*) and in this way/manner (*trópos*) exists/is (*eimi*) in the expanding universe

In turn, the *bios* concept expresses “life” as properties or relations associated with “negative $\delta^{13}\text{C}$ anomalies in carbonate rocks.” “The youngest Precambrian period, the Ediacaran, contains evidence of great environmental upheavals, including at least three glacial intervals, one of which may have occurred near the time of a major impact. All three glaciations are associated with negative $\delta^{13}\text{C}$ anomalies in carbonate rocks, indicating disturbance of the carbon cycle. More data are required, but it appears that the Earth may have adopted “Phanerozoic-style” circum-polar glaciations during the second half of the Ediacaran Period.”¹⁵⁶ *Bios* is definitely the new equal in the history of the emergent molecular system. It is the history of the meanings that are expressed by Formula 3:

beings, animals, men, and also plants. Life is understood, not as a thing, but as vitality, as the nature or manner which characterizes all living creatures as such” (TDNT, 2:832). See https://img.sermonindex.net/modules/articles/article_pdf.php?aid=34372

¹⁵² “the science of life and living things,” 1819, from Greek *bíos* “life, one’s life, lifetime” (from the PIE root *gwei- “to live;” see bio-) + -logy “study of.” The compound was suggested in 1802 by German naturalist Gottfried Reinhold Treviranus and introduced as a scientific term that year in French by Lamarck; the two seem to have hit upon the word independently.” <https://www.etymonline.com/word/biology>

¹⁵³ “SYNONYMS: βίος, ζωή: ζωή existence (having death as its antithesis); βίος the period, means, manner, of existence. Hence, the former is more naturally used of animals, the latter of men; cf. zoology, biography. N. T. usage exalts ζωή, and so tends to debase βίος. But see Lightfoot, Ignatius ad Rom. 7 [ET]” (Thayer, 1995). “βίος, life, i.e. not animal life (ζωή), but mode of life (cf. “εἰ χρόνον τις λέγει ψυχῆς ἐν κινήσει μετα βατικῆ ἐξ ἄλλου εἰς ἄλλον βίον ζωὴν εἶναι” Plot.3.7.11)” (Liddell & Scott, 1940).

¹⁵⁴ For example, Ἰησοῦς Ἐγὼ εἰμι ἡ ὁδὸς καὶ ἡ ἀλήθεια καὶ ἡ ζωὴ (John 14:6). In this case ζωὴ differs from βίος. ζωὴ refers to (1) “to live, be among the living, be alive (not lifeless, not dead); (2) to enjoy real life, i.e. to have true life and worthy of the name – active, blessed, endless in the kingdom of God; to live most happily in the enjoyment of the theocratic blessings; (3) 3. to live i.e. pass life, of the manner of living and acting; of morals or character” (Thayer, 1995). βίος refers to just (1) “life extensively, i.e. the period or course of life; (2) (as often in Greek writings from Hesiod, Works, 230, 575; Herodotus, Xenophon) that by which life is sustained, *resources, wealth*” (Thayer, 1995). See more detailed https://img.sermonindex.net/modules/articles/article_pdf.php?aid=34372

¹⁵⁵ For example, *χωλὴν τοῦ βίου διαπορευθεὶς ζωὴν* (*Timaeus* 44c2), where ζωὴ is existence, i.e. one’s substance, property, opp. death.

¹⁵⁶ (Young, 2018: 36).

(3) *Bíos* exists/is (*eimí*) in the “habitual” molecular manner (*dikēn*), i.e. as state-spaces in the physical system “*Zōé* breathes/makes cool (*psychō*)”

In planetary evolution, the state-spaces of the biosphere come to be (*gígnomai*) only after “the oxygenation of the atmosphere and oceans by fertilization of the oceans with essential nutrients during glaciations and triggering unprecedented photosynthetic blooms.”¹⁵⁷ At the same time, their emergence effectively advances and protects the *hēgemonía* of the “habitual” molecular manner of (*dikēn*). It undoubtedly constitutes a new milestone in the history of the “*Zōé* breathes/makes cool (*psychō*).”

In Earth’s evolution, the first biological state-spaces came to be (*gígnomai*) long before the Cambrian Explosion. “The most convincing and generally accepted multidisciplinary evidence for its oldest remains in the 3,480-Myr-old Dresser Formation of the Pilbara Craton, Australia.”¹⁵⁸ This points to the fact that *bíos* is generated and constantly updated by the glacial and periglacial environments.

Moreover, modern studies show that the planet’s transformation into an icehouse implies its successive transformation into a greenhouse.¹⁵⁹ That is, covalent carbon-hydrogen bonds and their development in the state-spaces of the cryosphere create conditions for the origin and evolution of complex biomolecules.

The biological molecular state-spaces form new types of carbon reservoirs and, in addition, the fast carbon cycle in the slow carbon cycle created by the Earth’s cryosphere.¹⁶⁰ The biological environments partially release carbon from the “frozen” state in which it is stored in the glacial and periglacial environments, and at the same time, “prevent all of Earth’s carbon from entering the atmosphere (as is the case on Venus).”¹⁶¹ The conditions for the development of covalent and ionic bonds are created. Carbon forms covalent bonds with other carbon atoms and hydrogen, oxygen, nitrogen and sulfur elements, providing structural stability and reactive properties essential for creating the three-dimensional structures of biological macromolecules and their continuous and non-linear interaction with each other and minerals. The “habitual” molecular manner (*dikēn*) demonstrates through *bíos*

¹⁵⁷ “Glaciations played an extremely important role in the oxygenation of the atmosphere and oceans by fertilization of the oceans with essential nutrients during deglaciations and triggering unprecedented photosynthetic blooms. Having played an important role in providing one essential ingredient for the rise of higher life forms (metazoans), glaciations also contributed to the environmental upheavals that may have accelerated evolutionary processes leading to the ‘Cambrian Explosion’ of higher life forms. Thus, the existence of glacial episodes and the evolution of higher life forms on Earth and other similar planets may be predicated on the existence of a dynamic interior that powers plate tectonics and the resultant supercontinental cycle” (Young, 2018: 39).

¹⁵⁸ “The ISB stromatolites predate by 220 Myr the previous most convincing and generally accepted multidisciplinary evidence for oldest life remains in the 3,480-Myr-old Dresser Formation of the Pilbara Craton, Australia. The presence of the ISB stromatolites demonstrates the establishment of shallow marine carbonate production with biotic CO₂ sequestration by 3,700 million years ago (Ma), near the start of Earth’s sedimentary record. A sophistication of life by 3,700 Ma is in accord with genetic molecular clock studies placing life’s origin in the Hadean eon (>4,000 Ma)” (Nutman et al., 2016).

¹⁵⁹ (Menzies & Meer, 2018).

¹⁶⁰ (Hannah, 2015). “Through a series of chemical reactions and tectonic activity, carbon takes between 100-200 million years to move between rocks, soil, ocean, and atmosphere in the slow carbon cycle. On average, 10¹³ to 10¹⁴ grams (10–100 million metric tons) of carbon move through the slow carbon cycle every year. In comparison, human emissions of carbon to the atmosphere are on the order of 10¹⁵ grams, whereas the fast carbon cycle moves 10¹⁶ to 10¹⁷ grams of carbon per year” (Riebeek, 2011).

¹⁶¹ See (Riebeek, 2011).

a new complexity in unchanging and changing properties. *Bíos* advances and protects the *hēgemonía* of the molecular forces and measure in planetary evolution much more efficiently.

A combination between the state-spaces of the cryosphere and biosphere creates a balance that keeps Earth's temperature relatively stable and less dependent on astronomical and tectonic events. The *Zōē* breathes/makes cool (*psýchō*) more fully and freely.¹⁶² "The fast carbon cycle is so tightly tied to plant life that the growing season can be seen by the way carbon dioxide fluctuates in the atmosphere. In the Northern Hemisphere winter, when few land plants are growing and many are decaying, atmospheric carbon dioxide concentrations climb. During the spring, when plants begin growing again, concentrations drop. It is as if the Earth is breathing."¹⁶³ The *Zōē* becomes *hēgemōn* in surface processes and landform development on Earth¹⁶⁴ and, fundamentally, even more physically accurate in astronomical, tectonic, and geochemical events.

The *hēgemonía* of the molecular forces and measure advanced and protected by the cryosphere and biosphere allows for "transitions" from greenhouse to icehouse. These forced reverse "transitions" protect the emergent molecular system from destruction (*phtheírō*)¹⁶⁵ and neutralize global astronomical and tectonic processes,¹⁶⁶ including large meteorite impacts,¹⁶⁷ solar activity, and Earth's orbital positioning.¹⁶⁸

Finally and probably most important, especially for us, the emergent system "*Zōē* breathes/makes cool (*psýchō*)" continues to progress in geological time.¹⁶⁹ *Bíos* begets a new type of equal, namely, *ánthrōpos* or otherwise the state-spaces of the noosphere.¹⁷⁰

In my previous studies, I had argued for the "uniqueness" of *ánthrōpos* and the noosphere, and investigated them as Intelligent Matter equal in importance to Living Matter.¹⁷¹ I was unaware of fundamentally new results in cryosphere research and the science of molecular fields and particles. As a result, I misinterpreted planetary evolution.

My work at the technical university, which specializes in the study of molecular fields and particles, helped me to draw my attention to the relevant literature and "come to know

¹⁶² "The magnitude of the feedback between soil microbial respiration and increased mean temperature may decrease (a process called thermal adaptation) or increase over time, and accurately representing this feedback in models improves predictions of soil carbon loss rates" (Zhang et al., 2023).

¹⁶³ (Riebeck, 2011).

¹⁶⁴ I want to recall again Vladimir Vernadsky's "biosphere" (Vernadsky, 1987) and James Lovelock's Gaia hypothesis (Lovelock, 2010), which led to important insights into the *historía* of the *Zōē*.

¹⁶⁵ "DeConto et al. (2012) found that a mechanism linking Earth's orbital properties with release of soil carbon from permafrost provides a unifying model accounting for the salient features of the hyperthermals" (Joseph, 2022).

¹⁶⁶ See (Menzies & Meer, 2018; Joseph, 2022), especially glacitectonics (Phillips, 2018).

¹⁶⁷ At least one enormous meteorite impact during the Ediacaran Period did not destroy the *Zōē*; on the contrary, it encouraged its growth. See (Young, 2018).

¹⁶⁸ "Using deep-sea sediment cores, Hays et al. (1976) found that, in agreement with Milankovitch cycles, for 500,000 years, major climatic changes have followed variations in obliquity and precession, with Ice Ages occurring when Earth was undergoing different stages of orbital variation" (Joseph, 2022).

¹⁶⁹ "Geological time is an integral component of stratigraphy because it provides a universal standard – 4.54 billion years' worth of Earth history – to which events of specific ages can be correlated" (Lee, 2018: 393-394).

¹⁷⁰ See (Teilhard de Chardin, 1987; Vernadsky, 1987; Lovelock, 2010).

¹⁷¹ (Bazaluk, 2016).

through myself” the meanings that are affirmed and determined by the proposition “*Zōē* breathes/makes cool (*psýchō*).” I state the key formula for our study (Formula 4):

(4) The cryosphere, biosphere, and noosphere are a few equal emergent molecular state-spaces that “move (work) together as *one*” to advance and protect the *hēgemonía* of the physical system “*Zōē* breathes/makes cool (*psýchō*)” in an expanding universe

The *Zōē* breathes/makes cool (*psýchō*) by the cryosphere, the biosphere, the noosphere, and some other types of molecular state-spaces. Among them, there are no better or worse, major or minor, restricted or non-restricted in actions (interactions). They all “move (work) together as *one*” in the “habitual” molecular manner (*díkēn*). They all demonstrate the unchanging and changing properties of molecular fields and particles, as well as patterns and logical connections between them.

Molecular Sciences investigate the physical system “*Zōē* breathes/makes cool (*psýchō*)” in Earth’s evolution, but at the same time, planetary geomorphology proves that its evolution is identical in the surface processes of many planetary bodies. The history of the emergent molecular system “*Zōē* breathes/makes cool (*psýchō*)” is equal to *alēthēs*, unconcealed.

***Psukhē* exists/is (*eimí*) in the “habitual” molecular manner (*díkēn*)**

With the above in mind, we can conclude that we have used the *ánthrōpos* paradigm and ascended into the past of our physical system. On the one hand, we can now observe the *éthos* and discern in it the “habitual” molecular manner (*díkēn*) as unchanging and changing properties. We observe the “habitual” molecular manner (*díkēn*) as “customary, prescriptive” (*nómimos*) for fields and particles based on molecular geometry (electron group geometry). On the other hand, we can observe and come to know Formula 2 and its results. In this case, we discern the only rightful (*themitós*), i.e., the history of the emergent molecular system “*Zōē* breathes/makes cool (*psýchō*),” including the history of a few equals that “move (work) together as *one*” to advance and protect the “habitual” molecular manner (*díkēn*) in an ever-changing universe.

Now, looking back, we can say that we see the perspective that the question “What is *ánthrōpos* as the physical system?” produces. In the growing complexity of the “customary, prescriptive” (*nómimos*) and the only rightful (*themitós*) for “*Zōē* breathes/makes cool (*psýchō*),” we gaze on (contemplate) *éthos* as the history of a few equals. We can “exhibit side by side” “my own *psukhē*” and equals, “Me” and “Them.” We clearly see our own guiding perspective in the history of the emergent molecular system and the universe. We discern the “customary, prescriptive” (*nómimos*) rightness (righteousness) for “Me,” i.e. the only rightful (*themitós*) *daímōn*,¹⁷² where *daímōn* (a god, a deity or divine power) and “its root meaning denotes ‘one who distributes or assigns a portion’. Destiny and fate are perfectly suitable words to convey the symbolic meaning of this word in its Heraclitean use.”¹⁷³ We discern and come to know ourselves—*ánthrōpos*—as

(1a) *Psukhē* exists/is (*eimí*) in the “habitual” molecular manner (*díkēn*)

¹⁷² *Daímōn* (δαίμων, noun), more freq. of the divine power (while θεός denotes a God in person), the deity; the power controlling the destiny of individuals: hence, one’s lot or fortune (Liddell & Scott, 1940).

¹⁷³ (Adamidis, 2016).

In other words, we have clarified Formula 1, which we found in the 3-thousand-year written history of *ánthrōpos*.

Consequently, we become literally *eudaimōn*, “blessed with a good genius: hence, fortunate,”¹⁷⁴ happy. *Eudaimōnia*, happiness is “to come to know through oneself” what is equal and right (just) ever to practice one’s *éthos* (“Me”), and never step over “Them.”

Hence, the main conclusion is that we must rethink the history of *ánthrōpos*.

As a matter of fact, the inspirational real-life history of *ánthrōpos* is a personal guiding perspective described by Formula 1a, but always and only within the history of “*Zōé* breathes/makes cool (*psýchō*)” described by Formula 2. “Destiny and fate” for *ánthrōpos* is to “move (work) together as *one*” in the yoke of the emergent molecular system and do everything for its benefit.

For several millennia, discursive thought and Plato’s *lógos* have been proclaiming the deathless and indestructible *psukhē*,¹⁷⁵ which is independently cleaned from the body¹⁷⁶ (*bíos*) to exist/be (*eimí*) equal to *alēthēs*.¹⁷⁷ Plato wrote that the *psukhē* is potency, which takes breath and cools/refreshes¹⁷⁸ to put into order and hold *phúsis*.¹⁷⁹ He even proposed a new word *physéchē*, “holding *phúsis*,”¹⁸⁰ to bind to the whole history of breathing/cooling (*psukhē*) from *ánthrōpos* to previous data expressed by the proposition “*Zōé* breathes/makes cool (*psýchō*).” “Destiny and fate” for *ánthrōpos* is to know what is equal to him in order to advance together the *hēgemonía* of the molecular forces and measure in the changing physical and chemical conditions of the universe. It follows that the “natural” “happiness, well-being, outward prosperity” (*eudaimonia*) for *ánthrōpos* is to exist/be (*eimí*) complete on their own as far as possible, i.e., physically pure, not mixed.

Two fundamental messages for neuroscience, psychology, and other sciences that investigate the history of *ánthrōpos* follow from Formula 1a.

1. Modern studies of nerve cells and nervous systems prove that “The shared stem cell of gland cells, neurons, and nematocytes suggests a shared evolutionary history of these cell types.”¹⁸¹ Moreover, neurochemistry and molecular neurobiology, evolutionary biology and neurobiology are developing the *ánthrōpos* conceptual model “in which a bipotential gland/

¹⁷⁴ (Liddell & Scott, 1940).

¹⁷⁵ “Then, about the deathless, too, if it is agreed by us also to be indestructible, *psukhē* would be in addition to being deathless also indestructible”(οὐκοῦν καὶ νῦν περὶ τοῦ ἀθανάτου, εἰ μὲν ἡμῖν ὁμολογεῖται καὶ ἀνώλεθρον εἶναι, ψυχὴ ἂν εἴη πρὸς τῷ ἀθάνατος εἶναι καὶ ἀνώλεθρος (*Phaedo* 106c7-d1). Translated by Harold North Fowler with modification.

¹⁷⁶ (*Phaedo* 67a2-5). μὴ καθαρῷ γὰρ καθαρῷ ἐφάπτεσθαι μὴ οὐ θεμιτὸν ἦ (*Phaedo* 67b1-2), “for it is not lawful (themiton) for not *katharós* to touch *katharós*.” Translated by Harold North Fowler with modification.

¹⁷⁷ (*Phaedo* 67b1).

¹⁷⁸ ἀναπνεῖν δύναμιν παρέχον καὶ ἀναψύχον (*Cratylus* 399e1).

¹⁷⁹ καὶ τὴν τῶν ἄλλων ἀπάντων φύσιν οὐ πιστεύεις Ἀναξαγόρα νοῦν καὶ ψυχὴν εἶναι τὴν διακοσμοῦσαν καὶ ἔχουσαν (*Cratylus* 400a11-12).

¹⁸⁰ ἔχει ‘φυσέχην’ ἐπονομάζειν (*Cratylus* 400b2-3). *φυσέχη*, word coined from φύσιν ἔχειν or ὀχεῖν, as etymol. of ψυχὴ (Liddell & Scott, 1940).

¹⁸¹ “The shared stem cell of gland cells, neurons, and nematocytes suggests a shared evolutionary history of these cell types. The data further suggest that the evolution of nematocytes coincided with the emergence of a distinct progenitor. We thus propose a model in which multipotent ISCs first decide between a nematocyte or gland/neuron fate and then a second decision is made by the common gland/neuron progenitor” (Siebert et al., 2019).

neuron progenitor born in the ectodermal layer, where multipotent ISC's reside, traverses the extracellular matrix to provide the endodermal layer with both gland cells and neurons."¹⁸²

It is now obvious that "neurons, glands, and stinging cells derive from a common pool of putative stem cells."¹⁸³ It proves that *bíos* "brings like and like together."¹⁸⁴ "As ever, god brings like and like together."¹⁸⁵ Neurons and neural systems are "the same in themselves" as biological state-spaces and other equals in the "*Zōē* breathes/makes cool (*psýchō*)."

Hence the conclusion – we must investigate *ánthrōpos* always and only as a personal guiding perspective within the history of the "habitual" molecular manner of (*dikēn*). *Ánthrōpos* has no "basis, foundation" (*thémethla*) and consequently the protected liberty, the right to exist/be (*eimi*) "universal" and an "ability to become independent."¹⁸⁶ The only rightful (*themitós*) for *ánthrōpos* is the right and duty to "move (work) together as *one*" to advance and protect the emergent molecular system in an expanding universe.

2. In the last century, neuroscience, psychology, and other sciences have produced diverse concepts and meanings that show the complexity of breathing/cooling (*psukhē*). Molecular and cellular studies of individual neurons and neural systems; visualization of sensory, motor, and cognitive tasks in the human brain, on the one hand, and "the scientific study of the way the human mind works and how it influences behaviour,"¹⁸⁷ on the other hand, clarify the features in the behaviour of *ánthrōpos* as a derivative (emergent) property or relation. The primary focus is on the visibility and impact of *ánthrōpos* as a participant in geochemical events.¹⁸⁸

Pierre Teilhard de Chardin and Vladimir Vernadsky, as the most authoritative and quoted creators of the concept of "noosphere," argued and correctly justified that *ánthrōpos* represents a "*strong force needed to accomplish something compulsory*" in Earth's evolution.¹⁸⁹ One of the most recent studies in this field concludes, "His (*Teilhard de Chardin*) core concept (his philosopheme) is the "noosphere" (derived from νοῦς: i.e. "mind" or "intellect"), co-developed with biogeochemist Vladimir Vernadsky and referring to the evolving layer of language and communication, science and technology, information and communication, transforming and absorbing both the geosphere and the biosphere, emerging and proliferating *via us*."¹⁹⁰

There is no doubt that the meanings that their followers attach to the Greek nouns *noûs* and *bíos* distinguish between the carbon cycles created by *ánthrōpos* and biological environments. "Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850-1900 in 2011-2020. Global greenhouse gas emissions have continued to increase, with unequal historical and ongoing contributions arising from unsustainable energy use, land use and land-use change, lifestyles and patterns of consumption and production across regions,

¹⁸² (Siebert et al., 2019).

¹⁸³ (Steger et al., 2022).

¹⁸⁴ (Siebert et al., 2019; Steger et al., 2022), including sources cited in publications.

¹⁸⁵ ὡς αἰεὶ τὸν ὁμοῖον ἄγει θεὸς ὡς τὸν ὁμοῖον (Hom. Od. 17.218). See (*Laws* 4.716c2 -3).

¹⁸⁶ I mean these meanings: "190. The animal has a limited range of ways and means for satisfying his limited wants. Man in his dependence proves his universality and his ability to become independent, firstly, by multiplying his wants and means, and, secondly, by dissecting the concrete want into parts" (Hegel, 2001: 160).

¹⁸⁷ <https://dictionary.cambridge.org/dictionary/english/psychology>

¹⁸⁸ (Vernadsky, 1987; Lovelock, 2010).

¹⁸⁹ (Teilhard de Chardin, 1987; Vernadsky, 1987).

¹⁹⁰ (Zwart, 2022).

between and within countries, and among individuals (high confidence).¹⁹¹ Nevertheless, and this is more important for us, the noosphere, biosphere, and cryosphere demonstrate similar unchanging and changing properties. In planetary geomorphology, the state-spaces of the cryosphere, biosphere and noosphere are studied as equal. The physical system “*Zōē* breathes/makes cool (*psýchō*)” begets them in order to ever “imitate, follow” (*miméomai*) the unmixed/pure (*eilikrinēs*) and consequently conform to Leibniz’s Principle of the Identity of Indiscernibles in an ever-changing universe.

The *Zōē* breathes/makes cool (*psýchō*) by *ánthrōpos* in the same way as by other types and states of molecular systems. Consequently, *ánthrōpos* is nothing more than the way/manner (*trópos*) of the breathing/cooling (*psukhē*),¹⁹² or in other words, the “habitual” molecular manner (*dikēn*), which is asserted and defined by Formula 2.

Hence the conclusion – we must investigate *ánthrōpos* always and only as unchanging and changing properties of the “*Zōē* breathes/makes cool (*psýchō*).” The history of *ánthrōpos* is the history of the continuous and non-linear complication of the “habitual” molecular manner (*dikēn*), that is, “customary, prescriptive” (*nómimos*) for molecular forces and measure. The emergent molecular system begets *ánthrōpos* “not that it may allow each to take what course pleases him, but with a view to using them for the binding together of the commonwealth.”¹⁹³ *Ánthrōpos* is the history of the “strong force” by which the emergent molecular system expresses itself much more effectively in planetary evolution. The “customary, prescriptive” (*nómimos*) for *ánthrōpos* is “to require equals to impart to one another any advantage which they are severally able to bestow upon the common.”¹⁹⁴

What are the unchanging properties of the physical system “*Zōē* breathes/makes cool (*psýchō*),” and what is equal to *ánthrōpos*?

To ascend into “What is “man” as the physical system?” as we now understand it, is to gaze on (contemplate) the meanings expressed by the proposition “*Zōē* breathes/makes cool (*psýchō*)” (Formula 2) rather than the “*Psukhē* exists/is (*eimi*)” (Formula 1a). It is “to come to know through oneself” what is “customary, prescriptive” (*nómimos*) and the only rightful (*themitós*) and, consequently, the proper organisation of the work in the emergent molecular system.

Furthermore, to ascend into “What is “man” as the physical system?” is to grasp the personal guiding perspective for *ánthrōpos* and recognize “...but in which way/manner (*trópos*) is it necessary to live?” Fundamentally, it is to learn to gaze on (contemplate) *ánthrōpos* as a chapter in the history of an emergent molecular system and, as a result, discursively think about him always and only through unchanging (or ‘state-independent’) and changing (or ‘state-dependent’) properties.

¹⁹¹ (IPCC, 2023: 4).

¹⁹² “In fact, what seems decisive in 726a2ff. is to emphasize *the essentially “divine” character of the ψυχή* – that is, it is precisely a question of calling attention to the special features of the identity of the ψυχή in that it is defined by its *relationship with the “divine,”* in such a way that a) the “divine” is a determination inscribed in the very way of being of the ψυχή and b), in the final analysis, everything in the ψυχή depends greatly on how it interacts with the “divine” (how it sees it, how it dedicates itself to it, etc.)” (Oliveira, 2021).

¹⁹³ I paraphrased (*Republic* 7.520a2-4). Translated by Paul Shorey.

¹⁹⁴ ποιῶν μεταδίδοναι ἀλλήλοις τῆς ὠφελίας ἦν ἂν ἕκαστοι τὸ κοινὸν δυνατοὶ ὄσιν ὠφελεῖν (*Republic* 7.519e3- 7.520a1). Translated by Paul Shorey with the modifications.

I have called unchanging properties of the emergent molecular system by the verb *légō*¹⁹⁵ as its meanings “do not vary, swaying one way and another by our fancy, but exist of themselves in relation to their own reality imposed by nature.”¹⁹⁶ The *légō* is a “name” that “never lost its meaning of gathering or collecting.”¹⁹⁷ Its meanings have passed into later verbs, Latin *lego* and German *lesen*,¹⁹⁸ and retained their identity to the present day.¹⁹⁹

The *légō* defines a molecular world of gathering, linking and combining, in which equals – micro and macromolecular state-spaces – have the right and duty to advance and protect the dominant “meaningful unit” of the physical system “*Zōē* breathes/makes cool (*psychō*)” in planetary evolution. I am referring to the creation of the thermodynamic balance between astronomical events, including orbital movements and insolation,²⁰⁰ on the one hand, and the generation of magmatism, i.e. magmatic, tectonic, and metamorphic phenomena, on the other.²⁰¹ It is within these boundaries that the “habitual” molecular manner (*dikēn*) is “gathered” and developed.

The *légō* is to seek out and connect with equals in order to practice together the personal guiding perspective that Formula 2 defines. This is primarily the right and duty “to gather or collect” molecular states, molecular quantities, molecular composition and molecular dynamics.

The conceptual framework of the *légō* is the actions (interactions) of a *despótis*,²⁰² “a mistress in a molecular manner.” On the one hand, each new equal is a *despótis* in relation to the preceding ones and their work in the yoke. It comes to be (*gígnomai*) always as a “strong force” sufficient and adequate to bind with and “turn about” molecular fields and

¹⁹⁵ From Proto-Hellenic **légō*, from Proto-Indo-European **leǵ-*, I put in order, arrange, gather.

¹⁹⁶ (*Cratylus* 386e). Translated by Harold N. Fowler.

¹⁹⁷ “The meaning of verb *λεγω* (*légō*) underwent an interesting evolution. It originally denoted a lying down to sleep. Then it slowly began to mean to lie together and to collect, and finally, it came to mean to lay before or to relate, or simply to say, speak, to deliver a discourse. Still, the verb never lost its meaning of gathering or collecting, and as an expression of intelligence, it demonstrates that the world of knowledge is a world of gathering, linking and combining. That explains with great clarity the many Biblical “metaphors” that deal with gathering or harvesting, and it also connects reason to fundamental offices such as that of the Levites (the joiners) and even places like Hebron (the joined).” Abarim Publications, <https://www.abarim-publications.com/DictionaryG/I/l-e-g-om.html>

¹⁹⁸ “Our verb also exists in Latin, and according to Lewis and Short *A Latin Dictionary* was imported from Greek. It even exists in German as *lesen*, which is usually considered as two separate verbs, one denoting the gathering of grains; to glean, and the other meaning to read.” Abarim Publications, <https://www.abarim-publications.com/DictionaryG/I/l-e-g-om.html>

¹⁹⁹ Suffice it to recall Lego products.

²⁰⁰ “Milankovitch examined how variations in three types of Earth orbital movements affect how much solar radiation (known as insolation) reaches the top of Earth’s atmosphere as well as where the insolation reaches” (Joseph, 2022).

²⁰¹ (Marsh, 2015; Menzies & Meer, 2018; Pollard, 2018; Joseph, 2022).

²⁰² Feminine *δεσπότης* is comparable to masculine *δεσπότης*, (a) The master of the house who normally rules unconditionally his family and household; (b) He is the lord as distinct from the slave; (c) He is the absolute ruler in the sense of an unlimited possibility of the exercise of power unchecked by any law, as exemplified in the Persian monarch; (d) The word is used esp. for the gods when it is desired to emphasise their power. Karl Heinrich Rengstorf, “*Δεσπότης, Οικοδεσπότης, Οικοδεσποτέω*,” ed. Gerhard Kittel, Geoffrey W. Bromiley, and Gerhard Friedrich, *Theological Dictionary of the New Testament* (Grand Rapids, MI: Eerdmans, 1964–), 44–45. <https://www.baptistboard.com/threads/δεσπότης-in-the-singular.128198/>

particles. It represents “a high level of personal (self) interest motivating.”²⁰³ Therefore, it evokes “respect, reverence” (*aidōs*).²⁰⁴ It rules unconditionally in the molecular yoke, i.e. constrains and obliges, forces inevitably to compete and clash. In other words, it exerts “the outward influence or pressure” on the work of the yoke in order to (i) purify it from the mixed, which enervates and hinders “imitating, following” (*miméomai*) the unmixed/pure (*eilikrinēs*). (ii) However, the most important thing is to unite equals and make significant progress in the work of the molecular yoke. The personal guiding perspective for each new equal is “to do (practice) one’s own” and “not “to be busy about many things,””²⁰⁵ but at the same time, to unlock new potential opportunities in the yoke to practise the peak molecular force in conjunction with all preceding equals. This is the essence of direct duties for the *despótis*, “the mistress in a molecular manner.”

On the other hand, *despótis* never abuses its ability to exert “the outward influence or pressure” on the work of the yoke. This way/manner (*trópos*) consumes and does not accumulate the molecular forces, and as a result, a molecular system will necessarily stagnate and decay. The most important thing is to reach a consensus in the yoke. That is, *despótis* provides the *hēgemonía* of the personal guiding perspective but, at the same time, excludes the meanings of *bía*, “bodily strength, force,” and *máchē*, “battle, combat.” The most important for the yoke is the *themitós* through (*diá*) *nómimos*, where “customary, prescriptive” (*nómimos*) is the “best-offer” to which all molecular compounds voluntarily obey and “imitate, follow” (*miméomai*) as the “base, foundation” (*thémethla*) and the only rightful (*themitós*). Therefore, *despótis*, “a mistress in a molecular manner,” is “*absolutely required*,” which “extends” as the “best-offer” (*ethélō*). The verb *ethélō* is “to desire (wish, will), wanting what is best (optimal) because someone is ready and willing to act; *thélō* is commonly used of the Lord extending His “best-offer” to the believer – wanting (desiring) to birth His persuasion (faith) in them which also empowers, manifests His presence, etc.”²⁰⁶

Each new equal strives for the emergent molecular system to live by the custom/law (*nómos*). “Nomos, the Greek term for law, applies not only to officially established laws but also to some socially sanctioned customs, sometimes called ‘unwritten laws’. Laws are thought of together with ways of life: a philosopher, says Socrates, might persuade people to adopt the laws and ways of life he establishes, and in two famous passages (*Republic* 502b3–8, 501a1–7, and 540e4–541a7) he talks of starting from scratch with the young, writing laws on a clean slate, and bringing them up in different ways and laws from those of their parents.”²⁰⁷ It means (figuratively) that each equal “willingly give over to Him (in our case – a new equal, *despótis*) the prerogative to be *self-governing*,”²⁰⁸ but it gets in return “the *timely help*” that helps to exist/be (*eimí*) complete on its own as far as possible.

²⁰³ The meanings of *miméomai* (Thayer, 1995).

²⁰⁴ *Aidōs* (αἰδώς, noun), regard for others, respect, reverence. “*Aidōs* is the support of the law in morals, an internalization of its coercive dimension through the emotion of shame,” “*L’aidōs* est le soutien de la loi dans les mœurs, une intériorisation de sa dimension coercitive par le biais de l’émotion de honte” (Renaut, 2018: 208). “We must distinguish between three kinds of shame in Plato” (Woodruff, 2000: 143-144).

²⁰⁵ τὸ τὰ αὐτοῦ πράττειν καὶ μὴ πολυπραγμονεῖν (*Republic* 4.433a7). Modern philosophy investigates it as “doing one’s own work” and “not meddling in the work of another” (McDavid, 2022: 98).

²⁰⁶ Verb *ethélō*, ἐθέλω = θέλω, (Thayer, 1995).

²⁰⁷ (Annas, 2017: 12).

²⁰⁸ (Thayer, 1995). The verb *δουλεύω*, *douleúō* “properly, to serve as a *slave*, having *all personal ownership-rights* assigned to the *owner*” (Thayer, 1995). In general, it is my interpretation of the well-known phrase καὶ δεσπότης ἐνῆν τις αἰδώς, δι’ ἣν δουλεύοντες τοῖς τότε νόμοις ζῆν ἠθέλομεν (*Laws* 3.698b5-6)

The comparison with *despótis*, “a mistress in a molecular manner,” helps us to identify and discursively think through the main connotation of *legō*. Basically, it is not “the outward influence or pressure” on equals and the work of the yoke, which is predominantly carried out by “bodily strength, force” (*bía*) and “battle, combat” (*máchē*). On the contrary, the unchanging properties in themselves are the production and growth of various “authoritative” molecular ways/manner (*trópos*) that “extend” the “habitual” molecular manner (*dikēn*) as the “best-offer” (*ethélō*).

The vast majority of equals actually “desire (wish, will)” a new equal; “wanting what is best (optimal) because someone is *best* (optimal) because someone is *ready* and *willing* to act,”²⁰⁹ *ethélō*/thélō. In other words, the work of the yoke needs a new quality, and so each new equal comes to be (*gígnomai*) as “something *compulsory* and *absolutely required*,” but never “battle, combat (*máchē*).”²¹⁰

Thus, I argue that the main connotation in *legō* is “consent and voluntariness” to advance and protect the molecular world of gathering, linking, and combining in an ever-changing universe. Fundamentally, *legō* is “to persuade” (*peithó*)²¹¹ to exist/be (*eimi*) complete on its own as far as possible in the “habitual” molecular manner (*dikēn*). Consequently, persuasion is the main connotation within molecular forces or otherwise “necessity, compulsion, constraint” (*anánkē*).²¹²

In other words, “customary, prescriptive” (*nómimos*) in *legō* are, on the one hand, the literal meanings of *anánkē*, “necessity, constraint, compulsion,” but which exclude the meanings of *bía*, “bodily strength, force” and *máchē*, “battle, combat.”²¹³ On the other hand, “customary, prescriptive” (*nómimos*) in *legō* is the dominant connotation of “to persuade” (*peithó*), which also excludes *bía*.²¹⁴ Elemental compositions with different mechanical behaviour, electrical properties, or chemical properties are “persuaded” (*peithó*) “to desire (wish, will)” “to gather or collect” and bind together. It is in this way/manner (*trópos*) that molecular forces “lead the way, go first” (*hēgemonía*) in surface processes and landform development on planetary bodies.

Légō is the necessity “to obey” the guiding perspective and the work that the new equal advances and protects. At the same time, the prior guiding perspectives really “rely on” the “best” new perspective that “binds” them with the unmixed/pure (*eilikrinēs*), i.e. with a new physical reality in an expanding universe, which the new equal promotes and legitimizes in the work of the yoke. As a perspective, the new equal is actually the “best-offer” and “*absolutely required*” for the previous ones. In addition, just as importantly, the new perspective is “customary, prescriptive” (*nómimos*). As a result, all equals in the yoke really become “better,” effective, and complete on their own in the changed physical and chemical environmental conditions.

For this reason, the state-spaces of the biosphere do not use “bodily strength, force” (*bía*) and “battle, combat” (*máchē*) in a relationship with the cryosphere. On the contrary, they extend the “best-offer” (*ethélō*) to the cryosphere that helps “to bind” and “move (work)

²⁰⁹ The meanings of the verb θέλω (Thayer, 1995).

²¹⁰ I refer to οὐ γὰρ πειθοῖ κεραννύντες τὴν ἰμάχην νομοθετοῦσιν (*Laws* 4.722c1), “in their legislation they do not temper compulsion (*máchē*) with persuasion.” Translated by R.G. Bury.

²¹¹ Peithó (πειθω, verb), prevail upon, persuade, usually by fair means (Liddell & Scott, 1940).

²¹² I follow Plato, πειθοῖ τε καὶ ἀνάγκη (*Republic* 7.519e3); πείσετε καὶ ἀναγκάσετε (*Laws* 2.661c5-6).

²¹³ Plato clearly distinguishes it, e.g. (*Laws* 4.722b-e).

²¹⁴ Plato contrasted *peithó* and *bía*, bodily strength, force: πειθοῦς ἀλλ’ ὑπὸ βίας (*Republic* 8.548b5-6); πειθοῖ καὶ βία (*Laws* 4.722b5-6).

together as *one*.” They offer *gēnesis*, a way/manner (*trópos*) to renew and re-emerge. The cryosphere begins to practise the new as “customary, prescriptive” (*nómimos*) because the biosphere, on the one hand, is “doing (practicing) one’s own” and fundamentally “not being busy about many things.” On the other hand, the state-spaces of the biosphere facilitate and accelerate the construction process of the yoke based on the new customs/laws (*nómos*). They persuade (*peithó*) to bind together even when the biosphere cleanses the cryosphere of the mixed. Let us remember that the most important thing for both the cryosphere and the biosphere is for their personal guiding perspectives to hold the peak molecular forces (*anánkē*) and consequently the *hēgemonía* of the “habitual” molecular manner (*dikēn*) in the planetary evolution. For both the cryosphere and the biosphere to exist/be (*eimí*) physically clean, free from admixture, is “customary, prescriptive” (*nómimos*) and the only rightful (*themitós*).

Ánthrōpos and any other new equal that comes to be (*gígnomai*) in the “habitual” molecular manner (*dikēn*) makes a similar “best-offer.”

It should also be emphasized that it is not the sum of masses of different carbon reservoirs²¹⁵ and the sum of their properties²¹⁶ that form molecular identity and individuality. Coherence with Leibniz’s Principle of the Identity of Indiscernibles is provided by the correlation between “possession,” “obedience,” and “efficiency” of molecular forces (*anánkē*).

In general, this means that all the equals that form the history of the emergent molecular system come to be (*gígnomai*) into the universe “to participate in a grand conversation where the different cognitive participators, at different organizational levels, constantly exchange streams of meaningful information.”²¹⁷ Moreover, each new equal comes to be (*gígnomai*) not by chance. Like previous equals, it “willingly gives over the prerogative to be self-governing” to the “habitual” molecular manner (*dikēn*), but at the same time, it is a “compelling need” and “timely help” for it. It is the right and duty to “imitate, follow” (*miméomai*) the unmixed/pure (*eilikrinēs*) and, as a result, to ever practise the only rightful (*themitós*) through (*diá*) “customary, prescriptive” (*nómimos*), that is the peak molecular force (*anánkē*) and *hēgemonía* of the “habitual” molecular manner (*dikēn*) in the surface processes of planetary bodies.

This is why the history of *ánthrōpos* is the history of the “absolutely required” for the *hēgemonía* of the emergent molecular system in astronomical, tectonic, and geochemical events. *Ánthrōpos* is the breathing/cooling (*psukhē*) that creates science, technology, and

²¹⁵ “mass is not so much connected to the notion of *identity* of a given conceptual entity, but instead to the different possible ways a given identity is able to manifest. Think of the puzzling existence of the three different *generations of elementary micro-entities*. Entities that are members of these different generations interact exactly in the same way but differ in their masses. To give an example, there are three different electronic entities: the ordinary *electron* of the first generation, having a mass of $0.511 \text{ MeV}/c^2$, the *muonic* electron of the second generation, having a larger mass of $106 \text{ MeV}/c^2$, and finally the *tauonic* electron of the third generation, with an even larger mass of $1777 \text{ MeV}/c^2$ (almost twice the mass of a proton” (Aerts et al., 2020).

²¹⁶ “Such structure is not categorical: sums of properties do not create new natures or real categories” (Paul, 2017: 39).

²¹⁷ “Secondly, by observing that “bit,” understood as a unit of measure in meaning exchanges, is not what combines to construct the physical entities of our spatiotemporal environment, or to more generally produce the different physical phenomena. What combines is not the bits of information, but the conceptual entities carrying such information, which participate in a grand conversation where the different cognitive participators, at different organizational levels, constantly exchange streams of meaningful information” (Aerts et al., 2020).

engineering to bind together various carbon cycles, change the Earth's surface temperature, and implement geological, chemical, and biological fractionation. Generally, unconscious and conscious processes advance and protect molecular states, quantities, composition, and dynamics. Whereas the so-called "age of technology" is a new layer of complexity to persuade (*peithō*) all equals to hold the peak molecular force (*anánkē*) in the "habitual" molecular manner (*dikēn*). In this way/manner (*trōpos*), *ánthrōpos* creates a third type of carbon reservoirs and flows between them, and binds together astronomical, tectonic, and geochemical events at a new qualitative level.

What are the changing properties of the physical system "Zōē breathes/makes cool (*psýchō*)" and what is "happiness, well-being, outward prosperity" (*eudaimonia*) for *ánthrōpos*?

I will refer to the changing properties of the "Zōē breathes/makes cool (*psýchō*)" by the verb *noiéō*, to perceive by the *noûs*, to think, to apply mental effort (*noûs*), needed to reach "bottom-line" conclusions, to understand, to mean, to consider, to intend.²¹⁸ *Noiéō* is to put into order and arrange (with or together) micro and macromolecular state-spaces in astronomical, tectonic, and geochemical events through practice within the boundaries of a particular "base, foundation" (*thémethla*) and the only rightful (*themitós*) for the emergent molecular system. *Noiéō* is to "come to know through oneself" a particular "measure" (*métron*) within which the ability to hold a personal guiding perspective makes "their possessor happy (*eudaimōn*), to the farthest possible limit of human happiness."

The proposition "Zōē breathes/makes cool (*psýchō*)" and Formula 2 assert the concepts of the *légō* and *noiéō* equally. The *hēgemonía* of molecular states, quantities, composition, and dynamics in planetary evolution is advanced and protected only via physical interactions. Therefore, it is critically important for the "Zōē breathes/makes cool (*psýchō*)" to develop changing properties – *noiéō* – "to drink a measure" and not "to drink more than the measure."

The proposition "Zōē breathes/makes cool (*psýchō*)" expresses a molecular "individual and ensemble ontology,"²¹⁹ which is a complexity with new "rules" of self-organisation (self-assembly). The *noiéō* advances and protects the "molecular mode" of caring for right/just (*dikaíos/iustus*) to secure the emergent system from *phtheirō*.²²⁰ Where the Greek-Latin concept *dikaíos/iustus*²²¹ clarifies the doctrinal and situational motives of the physical system "shows the "measure" which is to be imposed in such and such a dispute,"²²² so as not to "corrupt, defile, destroy" (*phtheirō*) itself.

Noiéō is the property or attitude to promotion "moderate things," i.e., molecular fields and particles in astronomical, tectonic, and geochemical events, and to defend oneself from "immoderate things,"²²³ i.e., anything that destroys (*phtheirō*) molecular identity and

²¹⁸ *Noiéō* (voéō, verb, from *noûs*).

²¹⁹ See (Jaeger, 2014).

²²⁰ *Phtheirō*, "probably strengthened from *phthio* (to pine or waste); properly, to shrivel or wither, i.e. To spoil (by any process) or (generally) to ruin (especially figuratively, by moral influences, to deprave) – corrupt (self), defile, destroy" (Strong's Exhaustive Concordance).

²²¹ "The analysis of the uses of *dikē* has brought out the frequency of the correlations between the Greek *dikē* and the Latin *ius*. These two terms, although different in origin, enter into parallel series: *dikēn eipeîn* corresponds to *ius dicere*; *dikaíos* to *iustus*, and finally, *dikas pólos* corresponds more or less to *iudex*" (Benveniste, 1973: 561).

²²² (Benveniste, 1973: 587).

²²³ (*Laws* 4.716c2-3).

individuality. *Noiēō* strengthens and consolidates molecular forces, but at the same time, it closely interacts with the external environment in the short, medium, and long term. *Noiēō* cares (Latin *medeor* “care for”) about the boundary between *gēnesis* and *phthorá*,²²⁴ i.e., between the property of being renewed in order to ever exist/be (*eimí*) physically pure and the property of being mixed to ever exist/be (*eimí*) mixed, deprived of its own identity and individuality in an ever-changing universe.

Since Plato’s time, *noiēō* has been formalised through the *nómos*²²⁵ and *éthos*²²⁶ concepts. Essentially, the *nóos*, *noiēō*, *nómos*, and *éthos* are four fundamental linguistic concepts that express in themselves and allow us to discursively think through the changing properties of a particular physical system. The inestimable importance of these concepts is explained by the fact that the ability to advance and protect one’s own identity and individuality in an ever-changing universe is based not only on force (*anáńkē*), but also on caring for the right/just (*díkaios/iustus*) measure, which the meanings of *nóos*, *noiēō*, *nómos* and *éthos* manifest in themselves. All four concepts are the fundamental linguistic concepts that “say” according to their nature about the need to ever conform to Leibniz’s Principle of the Identity of Indiscernibles.

On the one hand, to “exercise the *nóos*” for each new equal is *éthos*, “behavior based on tradition or custom.”²²⁷ Moreover, as we already know, it is the personal guiding perspective “to care for, attend to” (*epimeléomai*) oneself in the “habitual” molecular manner (*díkēn*).²²⁸ It means, first of all, to ever practise the peak molecular force (*anáńkē*), but always and only on the controlling base, “received and approved by usage (a custom),” “established by the *noiēō*.”²²⁹ Fundamentally, it is the *hēgemonía* of the constraints and obliges for the self-organisation (self-assembly) of personal guiding perspectives in the yoke, each of which is based on the experience of previous generations and the habitual actions,²³⁰ i.e. *éthos*. All equals “hear in themselves” and “imitate, follow” (*miméomai*) the experience of their predecessors.

²²⁴ Phthorá (φθορά, noun, from *phtheirō*), passing out of existence, ceasing to be. Περὶ Γενέσεως καὶ Φθοράς by Aristotle, Latin: De Generatione et Corruptione, literally “On Coming to Be and Passing Away.”

²²⁵ “νόμος, νόμου, ὁ (νέμω to divide, distribute, apportion), in secular authors from Hesiod down, anything established, anything received by usage, a custom, usage, law; in the Sept. very often for תורה, also for מצוה, דף, etc. In the N. T. a command, law” (Thayer, 1995).

²²⁶ “The major difference comes, as already claimed, in the new role that law plays in the Laws. This can be brought out by focusing on four points about law which are developed in the work and which shape the conception of virtue in it. These are: the nature of law; the kind of obedience citizens should have to the law; the kind of understanding citizens should have of the law; and the overall aim of the law in making virtue not just a general aim but a priority in citizens’ lives” (Annas, 2017: 78).

²²⁷ A primary verb ἔθω, εἶθθα, éthō, to be accustomed, to be wont) (Liddell & Scott, 1940).

²²⁸ I want to draw attention to the verb *epimeléomai*, “to care for, to attend to,” and its derivative noun *epiméleia* (care, attention), which Plato used to describe *psukhē* in the *Apology* and the *Phaedo*. On the one hand, “to care, to attend to (*epimeléomai*) the *psukhē*” meant to discursively think through (*dialégesthai*) the *psukhē* not only as the “life” of *ánthrōpos* but also as the meanings expressed by the proposition “Zōē breathes/makes cool (*psýchō*)” (*Phaedo* 107c1-3). On the other hand, and this is equally important, “to care, to attend to (*epimeléomai*) oneself” was Socrates’ dying testament to his disciples (*Phaedo* 115b4-6).

²²⁹ Νέμω, (νέμω, to divide, distribute, apportion) (Thayer, 1995).

²³⁰ It is the main meaning of the noun *éthos* (Liddell & Scott, 1940).

Each new equal advances and protects “something tried and tested by long use,” “brings back to normal – by a tried and tested means – some particular trouble or disturbance.”²³¹ It is through the *éthos* that it puts into order and arranges (with or together) equals, and this is the “best-offer” and not “the outward influence or pressure.” The equals voluntarily “turn” their *éthos* in order to communicate with the *hēgemōn* and “move (work) together as *one*.” They go through changes in their own “customary, prescriptive” (*nómimos*) and begin to “imitate, follow” (*miméomai*) the new equal, its *éthos*, but now as their own guiding perspective.

On the other hand, “to exercise the *nóos*” for each new equal is “to show the “measure” which is to be imposed in” the relationship between all equals in the physical system and hence the new quality of work in the yoke. The new equal is the *hēgemōn*, the “authoritative” *médōn* who cleanses the controlling base or otherwise the directing measure from the mixed.²³² “When Zeus is called *médōn*, this traditional epithet relates to the power possessed by the lord of the gods to apply the “measure” in given circumstances, on the occasion of a solemn oath, or when help is required. We wish to secure his intervention in the resolution of a specific difficulty since he has the power implied by the verb *médō*.”²³³

The new equal has the right and duty to “do (practice) one’s own” and needful, which is produced by one’s own *phúsis*. It “performs the one task that is proper to its nature” and so modifies the “customary, prescriptive” (*nómimos*) for equals. At the same time, it is “not busy about many things.” “Two conditions are presented as essential to the maximization of productivity: each member of society must (i) perform the one task that is proper to their nature and (ii) leave alone any other tasks. Accordingly, the Principle of Specialization (PoS) appears to have both conjuncts *a* and *b* at its core. “Doing one’s own work” and “not meddling in the work of another” are drawn together and promoted as the arrangement that will, in every case, best ensure that our needs are met.”²³⁴

“Doing (practice) one’s own” and “not being busy about many things” are the basis for “divide legally,” “acquire legally by way of apportionment,” and, as a result, not to wander²³⁵ between *gēnesis* and *phthorá*. “The meaning of *nómos* ‘the law’ goes back to “legal apportionment.” Thus, *némō* is defined in Greek as “to divide legally” and also “to acquire legally by way of apportionment” (this being the sense of the active).²³⁶

Thus, the right and duty to “do (practice) one’s own” forms the property or attitude of “being accustomed” (*éthō*) to freely expressing “Me,” “my own *psukhē*,” but at the same time “not to step over right/righteous (*dikaïos/iustus*), i.e., equal, “Their.” It means independently and without external direction to implement the cluster of organisational directives and instructions, *éthos*, but always and only based on custom/law (*nómos*).²³⁷

²³¹ “We are now in a position to give a more precise definition to this notion of a “measure” applied to things. What is involved is a measure of a technical character, of something tried and tested by long use. There is no suggestion of a procedure invented on the spur of the moment or of reflection on the part of one who has to devise his plans (...) To give a rough definition of **med-*, we might say that it is “to take with authority measures appropriate to a present difficulty; to bring back to normal – by a tried and tested means – some particular trouble or disturbance” (Benveniste, 1973: 585).

²³² “In the verb *hēgéomai* we have the notion of the conduct of operations, implying calculation and planning; in *médōn* we feel primarily the notion of authority and secondly – in the same way as in Latin – the notion of a directing “measure” (Benveniste, 1973: 584).

²³³ (Benveniste, 1973: 586).

²³⁴ (McDavid, 2022: 98).

²³⁵ Πλανάω, πλανωμένων (*Sophist* 230b7) (Ambury, 2018).

²³⁶ (Benveniste, 1973: 87).

²³⁷ *Nómos*, “From a primary *nemo* (to parcel out, especially food or grazing to animals); law

As a result, and in general, the molecular mode (*nóos*) of caring for right/just (*dikaios/iustus*) and its formalisation using *nómos* and *éthos* help us to know the changing properties of the “*Zōē* breathes/makes cool (*psýchō*)” as the “habitual” molecular manner (*dikēn*) of advancing and protecting its boundaries, *nómoi*, in planetary evolution. “Plato’s ambitious alternative is that law in our society is a part of the working of reason in the cosmos, and in Book 10 of the *Laws* he develops a cosmology which fills out this idea. Law is the objective force of reason in the cosmos, which we can appreciate both at the cosmic level in the regularities of the heavenly bodies’ movements and also in ourselves as members of communities. Law is what produces order and regularity, and in identifying with our reason, the aspect of us that appreciates the cosmic force of law, we are doing our part to keep ourselves, and hence from our perspective the cosmos, orderly.”²³⁸

The result of the *noiēō* is a particular – molecular – mode of taking care of space localisation as “the measure of all things in the highest degree” and, in addition, the source of the localisation is specified.²³⁹ For example, “The thermal regime of the upper part of the lithosphere is controlled by exchanges of heat and moisture between the atmosphere and the ground surface, the thermal properties of ground materials, and heat flow from inside the Earth.”²⁴⁰ In turn, the so-called “age of technology” has come to be known in geological time as the beginning of the coming changes in the “customary, prescriptive” (*nómimos*) for the work of the yoke.

The changes that *ánthrōpos* makes in the emergent molecular system are not unique. The “Age of Technology” is like the Snowball Earth Huronian glaciations that caused the Great Oxidation Event 2.4-2.5 billion years ago and the Cambrian Explosion during the Ediacaran Period (from 635 to 541 Ma).

Planetary geomorphology helps us “to come to know through ourselves” that for anyone equal in a molecular system, on the one hand, it is critically important to develop changing properties, *noiēō*, “to drink a measure” and ever advance and protect the *hēgemonía* of molecular fields and particles in surface processes and landform development on planetary bodies. On the other hand, it is the changing properties, *noiēō*, that produce and guarantee the physical state, which we call “happiness, well-being, outward prosperity” (*eudaimonia*). *Eudaimonia* is the property of grasping and legally “imitating, following” (*miméomai*) a personal guiding perspective in astronomical, tectonic, geochemical, and socio-cultural events, but at the same time, “not drinking more than the measure.” It is the right and duty to “pull together” equals, but always and only on the basis of what is right/just (*dikaios/iustus*).

In other words, “happiness, well-being, outward prosperity” (*eudaimonia*) for *ánthrōpos* is to ever hold one’s own guiding perspective as the only rightful (*themitós*), but at the same time to be guided by the Pythagorean Symbol “Don’t step over the yoke.”²⁴¹ Where the yoke is the “eternal” cyclical renewal, Ourobóros,²⁴² to “move (work) together as *one*” and ever exist/be (*eimí*) in the “habitual” molecular manner (*dikēn*).

(through the idea of prescriptive usage), genitive case (regulation), specially, (of Moses (including the volume); also of the Gospel), or figuratively (a principle) – law”) (Thayer, 1995).

²³⁸ (Annas, 2017: 5).

²³⁹ (Liddell & Scott, 1940).

²⁴⁰ (Pollard, 2018: 547).

²⁴¹ τὸ δὲ ζυγὸν μὴ ὑπερβαίνειν (Diogenes Laertius, 8.1.18). For the Pythagorean Symbols, the Pythagorean acusmata, see (Horky, 2020: 171). Diogenes Laertius calls the Pythagorean dogma (Πυθαγόρειον δόγμα) (Diogenes Laertius, 8.1.15). Edited by Robert Hicks (1972).

²⁴² The ancient symbol of the ouroboros represents “the cycle of events understood to represent the creation of the world” (Van der Sluijs & Peratt, 2009: 5).

The above is for the changing properties, we can describe with Formula 5 or the “formula of happiness”:

- (5) The ultimate reason for respecting equals is not that it will make Them *eudaimōn* (happy), but that it will make Me *eudaimōn*

I paraphrased Burnyeat, “All the ancient thinkers insist that evil-doing brings misery: only the good are truly happy. So the ultimate reason for respecting animal life is not that it will make the animals happy, but that it will make me happy.”²⁴³

In essence, this is the initial formulation of the *ánthrōpos* paradigm, which helps to get beyond an impasse, to go through the “self-evident truths” that “all men are created equal, that they are endowed by their Creator with certain unalienable Rights,”²⁴⁴ in order to “come to know through oneself all unmixed/pure (*eilikrinēs*).” First of all, it is “Them,” that is, equals, and “Me,” that is, “my own *psukhē*,”²⁴⁵ which is “let out of the body as if out of bonds.”²⁴⁶ Only in this case will we discern the perspective indicated by Plato that *eudaimonia* is “doing (practicing) one’s own” unmixed/pure (*eilikrinēs*), which is produced by one’s own *phúsis*, and “not being busy about many things.”

Conclusions

Niels Bohr’s experience²⁴⁷ convinced me to use Plato’s *lógos* as a unified language for data analytics, ranging from contemporary research to prophetic visions and the knowledge of the past. “It is decisive to recognize that, however far the phenomena transcend the scope of classical physical explanation, the account of all evidence must be expressed in classical terms.”²⁴⁸

Plato’s *lógos* creates the appropriate balance between the creative force that the Greeks denoted by the verb *gígnomai* and the destructive force denoted by the verb *phtheírō*. It helps to authoritatively structure and formalize the order of recording the data that the three thousand years of written history holds.

We should know and always remember that the noun *lógos* ((i) that which is said: word, sentence, speech); (ii) that which is thought: reason, consideration, computation) comes from the verb *légō*, (i) “to speak to a conclusion,” but at the same time also (ii) “to gather

²⁴³ (Burnyeat, 2012: 286).

²⁴⁴ “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness” (The unanimous Declaration of the thirteen United States of America, 1776).

²⁴⁵ τὴν αὐτοῦ ψυχὴν (*Laws* 5.726a6-5.727a1-2).

²⁴⁶ “But doesn’t *kátharsis* happen to be this, the very thing which long ago was said in the speech, namely, separating the *psukhē* as much as possible from the body and accustoming her to collect and gather herself by herself in all places out of the body, and also to dwell (*oikein*) insofar as it is possible in the present time and in the time thereafter alone by herself, being let out of the body as if out of bonds?” (*Phaedo* 67c-d). Translated by Gwenda-lin Grewal.

²⁴⁷ “The Copenhagen interpretation was the first general attempt to understand the world of atoms as this is represented by quantum mechanics. The founding father was mainly the Danish physicist Niels Bohr, but also Werner Heisenberg, Max Born and other physicists made important contributions to the overall understanding of the atomic world that is associated with the name of the capital of Denmark” (Faye, 2019).

²⁴⁸ (Faye, 2019).

or collect.” Moreover, the meanings of “discursively think,” “discursive thought,” etc., are derived from the Greek verb *dialégomai*, “from *diá*, “through, from one side across to the other,” which intensifies *légō*, “speaking to a conclusion” – properly, “getting a *conclusion across*” by exchanging thoughts (logic) – “mingling thought with thought, to ponder (*revolve in the mind*).”²⁴⁹ Thus, the main connotation in the phrase “to think discursively” is *diá-légō*, a particular way/manner (*trópos*) to “gather or collect” molecular states, quantities, composition, and dynamics. *Ánthrōpos* thinks, he says, but it is equivalent to advancing and protecting the molecular world of gathering, linking, and combining in planetary evolution.

Fundamentally, it is the unchanging properties (or otherwise *légō*) of the emergent molecular system, which we have called “*Zōē* breathes/makes cool (*psýchō*),” that produce discursive thought and its products: science, technology, engineering, etc.

The main result of our investigation is the presentation of *ánthrōpos* and its history as a derivative (emergent) property or relation whose personal guiding perspective is described by Formula 1a: *Psukhē* exists/is (*eimí*) in the “habitual” molecular manner (*díkēn*).

We have established that *ánthrōpos* has the right and duty to have a finite number of degrees of freedom to practice the unmixed/pure (*eilikrinēs*) and consequently the only rightful (*themitós*). At the same time, the only rightful (*themitós*) for *ánthrōpos* is to advance and protect the “customary, prescriptive” (*nómimos*) for fields and particles based on molecular geometry (electron group geometry). *Ánthrōpos* “pulls together” molecular fields and particles to hold the peak molecular force, but at the same time, he “cares for, attends to” (*epimelēomai*) the molecular measure as “the measure of all things” in the highest degree. In geologic time, the age of science, technology, and engineering is equivalent to the Snowball Earth Huronian glaciations and the Cambrian Explosion, which caused the preceding equals.

Our research has proven that, in fact, *ánthrōpos* has never been “alone” in the universe²⁵⁰ or “the only technological species that has ever arisen.”²⁵¹ The seven-million-year history of his “nature” testifies that *ánthrōpos* is a new equal in the emergent molecular system. We have described it as “*Zōē* breathes/makes cool (*psýchō*) and in this way/manner (*trópos*) exists/is (*eimí*) in the expanding universe” (Formula 2).

Based on the results of studies in molecular physics, molecular chemistry, and other sciences, we have described the “base, foundation” (*thémethla*) on which micro and macromolecular systems are built from elemental compositions and achieve *hēgemonía* in surface processes and landform development on planetary bodies (Formula 4). In the history of the emergent molecular system, the history of *ánthrōpos* is a new quality of involvement of molecular state-spaces in tectonic and geochemical events, and as a consequence, “control” of planetary evolution up to changes in the physical parameters of the planets. *Ánthrōpos* “moves (works) together as *one*” with other types of molecular state-spaces (equals) and provides molecular identity and individuality in an ever-changing universe.

“*Zōē* breathes/makes cool (*psýchō*)” is a close relationship between the states-spaces that form it, between equals. *Bíos* “hears” the *lógos* of the cryosphere and “imitates, follows” (*miméomai*) it as far as possible. In turn, *ánthrōpos* “comes to know through himself” what is “customary, prescriptive” (*nómimos*) and the only rightful (*themitós*) for himself, the

²⁴⁹ (Thayer, 1995). “*dialégomai* (“getting a conclusion across”) occurs 13 times in the NT, usually of believers exercising “dialectical reasoning.” This is the process of *giving and receiving* information with someone to *reach a deeper understanding* – a “going back-and-forth” of thoughts and ideas so people can better know the Lord (His word, will)” (Thayer, 1995).

²⁵⁰ NASA’s SETI program (<https://www.seti.org>).

²⁵¹ The Drake equation and Frank and Sullivan’s equation (Frank & Sullivan, 2016).

biosphere, cryosphere and other equals and “discursively thinks” (*diá-légō*) the noosphere as a new type of molecular fields and particles. NASA’s SETI program,²⁵² Kepler/K2 Stories,²⁵³ NASA’s Mars Exploration Program 2023-2043,²⁵⁴ SpaceX – Missions: Mars,²⁵⁵ “missions to the Moon,”²⁵⁶ current hypotheses for Unidentified Anomalous Phenomena (UAP), and much more are the *lógos* of the emergent molecular system that “guides” *ánthrōpos* in planetary evolution. The preceding equals “speak” to the *ánthrōpos* through the *lógos* of his genetics. Each new generation of *ánthrōpos* “hears” the authoritative *lógos* “*Zōē* breathes/makes cool (*psýchō*)” through its genetics and “imitates, follows” (*miméomai*) it in daily life as much as possible. This is how the emergent molecular system shapes the history of *ánthrōpos* as a way/manner (*trópos*) to “care for, attend to” (*epimeléomai*) molecular forces and measures much more effectively.

Cyclical variations in the Earth’s climate (the Milankovitch climate cyclicality) and dependence on astronomical and tectonic events force the emergent molecular system to generate new generations of *ánthrōpos* as “a *compelling need* requiring *immediate* action, i.e. in a *pressing* situation.”²⁵⁷ *Ánthrōpos* as a molecular force – *anánkē* – “calls for *timely help*, i.e. *strong force needed* to accomplish something *compulsory* (*absolutely required*).”²⁵⁸ As a result, each new generation of *ánthrōpos* is a “strong force” (*anánkē*) that adapts the work of the preceding equals to the physical and chemical conditions of the ever-changing universe and ensures coherence with Leibniz’s Principle of the Identity of Indiscernibles.

Fundamentally, it is not “advanced civilizations arriving from elsewhere” and “forms of non-human intelligence (NHI)” that influence surface processes on Earth. This makes the “*Psukhē* exists/is (*eimi*),” i.e. *ánthrōpos*, who come to be (*gígnomai*) in new generations as an “*absolutely required*” and “best-offer” for the molecular yoke. The *lógos* of the “*Zōē* breathes/makes cool (*psýchō*)” transforms each new generation of *ánthrōpos* into *despótis* through changes in their genetics. *Despótis* follow the *lógos* of their genetics and “lead the way, go first” (*hēgemonía*) in the “habitual” molecular manner (*dikēn*). *Despótis* ever practices the *lógos* of his genetics and, consequently, one’s *éthos*, which makes him happy (*eudaimōn*) “to the farthest possible limit of human happiness” (Formula 5). At the same time, however, *despótis* is really just an instrument by which the emergent molecular system ever “imitates, follows” (*miméomai*) the unmixed/pure (*eilikrinēs*) and hence the only rightful (*themitós*) in the ever-changing universe.

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²⁵² <https://www.seti.org/>

²⁵³ <https://science.nasa.gov/mission/kepler>

²⁵⁴ <https://science.nasa.gov/planetary-science/programs/mars-exploration/future-plan-2023-2043/>

²⁵⁵ <https://www.spacex.com/humanspaceflight/mars/>

²⁵⁶ <https://www.nature.com/articles/d41586-022-01252-7>

²⁵⁷ (Thayer, 1995).

²⁵⁸ (Thayer, 1995).

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